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PART I.—ORIGINAL COMMUNICATIONS.

ARTICLE I.

Blindness Caused by the Use of Sulph. Quinine. By JOHN McLEAN, M. D., Prof. of Materia Medica in the Rush Medical College.

Quinine when freely administered produces a species of intoxication, tinnitus aurium, a sense of fullness in the head, cephalgia, and other affections; and sometimes, although not so frequently, blindness, more or less lasting.

M. Troussseau, relates the case of a tailor, who, for the relief of a periodical asthma, took 48 grs. of the sulph. quinine, at one dose. In four hours, he experienced ringing in the ears, dullness of the senses and vertigo; and in seven hours, he was blind and deaf, his mind wandered and he was unable to walk. These effects, for which no active medicine was administered, gave way spontaneously, during the night. A young girl at the "Hôpital Cochin," in consequence of having taking freely of the sulph. quinine, became affected with amaurosis, which continued at the end of three weeks, notwithstanding, appropriate and energetic means were employed for the restoration of her sight.

Dr. Rognetta, who claims for Rasori, priority in the use of quinine in acute rheumatism, "thinks, with the Italian physicians that the limits of tolerance should not be exceeded, and that beyond this, a species of poisoning may be induced, known by deafness, blindness, hallucinations, haematuria, &c." (See "Boston Medical and Surgical Journal," vol. 32, p. 250.)

Blindness, although not so common as the other effects, is not unfrequently produced, and may be prolonged for months or even years. It is not, however, generally known, that such may be the result of this medicine, when given in large quantities. The following, are some cases occurring in this place and immediate vicinity, which show that when thus administered, it may produce blindness more or less permanent.

Case 1st. Mr. P. of the town of Barry, Jackson co., was in the year 1840 attacked with a low grade of remittent fever, the nature of which was such, as to cause the attending physician to administer the sulph. quinine in large and frequent doses. Sixteen grains, (as judged by sight,) were ordered every hour, and continued until nearly one ounce was taken. Before the quinine was discontinued, he became perfectly blind, which, with a slow and gradual amendment continued during the first year. Later than this, I have not been positively informed in regard to the case, but should judge, from what indirect information I have received, that his sight is not yet perfectly restored.

Case 2d. Mrs. B., of the town of Concord in this county, was, a few years since, reduced so low by the endemic fever of the country, that her life was despaired of. As a last resort large quantities of quinine were given, and while taking it she became blind, which continued for several weeks. As she recovered her health the blindness gave way, and her sight was finally restored. Not being acquainted with the particulars of this case, I can give but these few general outlines.

Case 3d. P. M. Everett of this place, was, in the autumn of 1843, attacked with remittent fever, and in a few days became so greatly reduced, as to leave but slight hopes of his recovery. Sulph. Quinine was therefore prescribed, in doses averaging three grains, every hour, and was continued for three days. In a short time, he became deaf and soon after so blind, that he could not see a burning candle, when placed immediately before his eyes. The blindness took place on the third day, after the commencement of the free administration of the sulph. quinine. Previous to this, and at this time, his mind, (with the exception of occasional slight wanderings) appeared to be perfectly clear. After some weeks, his sight became partially restored, but continues more or less imperfect, even at the present time.

During the greater part of the first year, he could look steadily at the sun, without seeing it, or even any painful sensation being produced. When he first began to see sufficiently to read, which was in the course of the first year, he could perceive but a small luminous spot upon the paper, about one inch in diameter, within which, he could distinguish letters, but all without this, was cloudiness and confusion. During this time, the pupils were very much dilated, and he could see objects at a distance much better than those near by. His sight has continued to improve, ever since; and at the present time, although quite imperfect, is sufficiently good to enable him to read and write, although with some difficulty. The pupils are still considerably dilated, and it is with great difficulty, that he can discern objects by twilight. The direct rays of the sun upon the head, produce pain there, accompanied with a painful sensation deep in the orbit of the eye and a disordered vision. At the present time, exercise easily produces fatigue, by which his sight is much impaired.

Case 4th. In the month of April, 1846, Dr. R. of this place took in doses of six grs. each, three drachms of quinine in 36 hours; at the expiration of which time, he became perfectly blind. His hearing was somewhat blunted, although, it did not, in degree, equal the blindness. On the two succeeding days, his sight, although very imperfect was considerably restored. Had he lived, the probability is, that this imperfect sight would, as in the former cases, have continued a considerable length of time.

Remarks.—We think it clear that the blindness in the foregoing cases was the effect of the quinine; for we see it in each, coming on suddenly during its administration in large quantities, and at a time, when no other medicine was given that would be likely to produce such results. Here, cause and effect appear to be closely connected, and are so plain, as scarcely to admit of the possibility of a doubt. From the symptoms accompanying the foregoing cases, we should judge that the proximate cause of the blindness, was mainly an affection of the retina or optic nerve, producing amaurosis.

I have recorded the foregoing facts, with the hope that they might be the means of causing some useful suggestions, in relation to the physiological effect and administration of this medicine.

In connection with the foregoing, we might mention the case of Mr. B. Porter, of this town, who has had for sixteen years and upwards, amaurosis of the left eye, which he supposed to have been produced by the application of a strong subacetate of copper ointment, to that side of the face, for the purpose of curing *Herpes circinatus*. As the ringworm gave way, the blindness came on.

About one year since, he suffered with a periodical neuralgia, for which I ordered 32 grs. of quinine to be taken in divided doses of 4 grs. each, every two hours. Under its influence, the neuralgia disappeared; and on the following day, he could see objects quite distinctly with theamaurotic eye—much better than ever before, since it first became diseased, and he was much elated, with the thought of soon regaining its sight. He, however, took no more quinine, and in a few days, the benefit produced to that eye was entirely lost.

Jackson, Mich., Sept. 22, 1846.

ARTICLE II.

A case of Strangulated Hernia in a man aged 82 years. By Dr. JESSE HARVEY, of Harveysburg, Ohio.

B. M., aged 82 years, was afflicted with inguinal hernia of the intestines for about eleven years; the bowel often passing down but returning again without difficulty. About the middle of the third month, 1844, it became so strangulated, that a physician, who was called in, returned it with considerable difficulty. About two weeks after this time, while exercising, the bowel passed entirely down into the scrotum, filling the sack completely. He went to bed and made the usual efforts to return it; but failing, sent to my office about 6 o'clock in the evening, for assistance. At about 8 o'clock I arrived at his house, found him in great pain, and immediately entered upon the regular routine of operations, by the taxis, &c., for his relief. After an hour's labor I felt that I should fail,—bled freely and tried again with no better success. I wished to try the tobacco injection, but believing it would require to be carried to the last extreme to succeed, I desired counsel. While he was being brought, I continued my efforts, but to no purpose. When the physician arrived we commenced again,

and after an hour the case was pronounced a hopeless one, except relieved by an operation, the tobacco injection having been carried to full effect.

Now about 12 o'clock at night further counsel was requested, the physician previously called, declaring that his nerves would not permit him to witness the operation. A messenger was dispatched for my friend Dr. Fisher, of Waynesville, who did not arrive until about 9 o'clock the next morning. We then applied ice to the parts for an hour or two, and made such efforts as were thought best, but all failed, and at about 12 o'clock we commenced the operation.

The sack was carefully opened with the scalpel and the stricture of the ring divided sufficiently to allow the bowel to return; but adhesions had formed, that prevented. I passed my finger into the vaginal sack, broke up the adhesions between the two serous membranes, and the intestine was replaced. The wound was dressed and a dose of calomel, ipecac, and morphine, was given, to be followed by a portion of castor oil with spts. turpentine.

Called the next day,—the bowels had been freely moved. Repeated the prescription of yesterday. The diet to be toasted bread and water sweetened.

The next day, 4th month, 6th, same prescription continued. 7th, mercurial action apparent and the calomel discontinued —oil of turpentine given in small doses every fourth hour, until the bowels were moved—this was continued daily until the 10th. The patient improved rapidly, the wound healed kindly and on the 14th my visits were discontinued.

About a month after this, he suffered a severe cholic, which with difficulty was relieved. He recovered from it rapidly, and enjoys good health. The operation did not close the ring, yet with the aid of a truss, he can walk or ride even on horseback, and makes baskets for a livelihood.

The ice had at least the good effect to restrain hemorrhage as the quantity lost was not sufficient to be troublesome during the operation.

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ARTICLE III.

Case of Placenta Previa. By W. BUTTERFIELD, M. D., Ottawa, Ill.

The following case will perhaps be considered somewhat illustrative of the "vis medicatrix naturæ," upon a point of great importance in obstetric practice, which has lately occasioned a spirited controversy between high authorities. Taken as an isolated case, it would seem to sanction the practice of removing the placenta, where flooding becomes dangerous, before the delivery of the child is accomplished either naturally or by turning, as the most effectual means of arresting hemorrhage in placenta previa. On the 20th of May, last, early in the morning, I was requested to visit Mrs. I., in labor with her second child. I was informed that she considered herself about seven months advanced in pregnancy. It appeared that upon rising from her bed a short time previously, she was seized with severe pain which was followed by the rupture of membranes with escape of the waters. The pains occurred at short intervals accompanied by hemorrhage. On examination, I found the os uteri dilated to about the size of a quarter of a dollar, but exceedingly rigid and resisting: nevertheless, I satisfied myself that it was a case of placental presentation. During each pain the funis in which no pulsation was perceptible protuded into the vagina. After waiting a considerable time, as the pains did not increase either in strength or frequency, and the hemorrhage being but trifling, I determined to leave, enjoining my patient to observe strict rest and the horizontal posture during my absence. The room was ordered to be kept cool, and acidulated beverage administered. The T. opii. camph. was also given more for the purpose of calming and soothing the patient's mind than on account of its medicinal properties. On returning after a lapse of three hours, the patient was found in the same condition and therefore interference was neither necessary, nor practicable. After repeating my injunctions as to rest and the posture, and requesting I might be informed the instant either flooding or pain returned, I again left. At the expiration of four hours, not having received a message in the interim, I paid another visit. The os uteri was now more dilated and less rigid, with a considerable segment of the placenta

projecting into the vagina. As however the uterine action was still feeble, the hemorrhage but trifling and the patient's spirits and strength being good, with an unblanched countenance, I determined upon a further delay. I therefore took my departure with a distinct understanding that I should be apprised as soon as any emergency arose. About half past nine o'clock P. M., I received an urgent summons to attend. On my arrival, the placenta had just been expelled, and both arms and one leg of the foetus were protuding through the os externum. In this state of things, the obvious course was to bring down the inferior extremities, an object I was preparing to accomplish, when a violent pain came on, which suddenly effected the delivery without any alteration having occurred in the presenting position of the child. The hemorrhage entirely ceased on the expulsion of the placenta, and the patient experienced an uninterrupted and a rapid recovery. It is almost needless to add, that the child, apparently of about seven month's growth, was dead.

ARTICLE IV.

To the Editor of the Illinois and Indiana Medical & Surgical Journal:—

Dear Sir,—A case of some interest recently fell under my observation.

Mr. J. W. _____ of this town, æt. 30, of a slender constitution and strictly of a scrofulous diathesis, called on me some five years since, with a general derangement of the digestive organs. The constitution thus delicate, I advised him to the moderate use of the blue pill with the extract of conium, and a weak infusion of columbo, which had a favorable effect, and he gradually improved, and was quite well for two or three years, when he again called on me for the same prescription. He then informed me that he had a disease of one of his testicles, and that the same existed when I first saw him, and that it disappeared on following the prescription I gave him, and he supposed the same effect would be produced should he enter again upon the same course. I consequently gave him the same prescription, which he followed some weeks, but to no effect. After passing three or four months, without any medication, he called on me to examine his case, and on

examination, I found the left testicle as large as a goose egg, and scirrhus. I advised its extirpation, and in the course of two months he came to the conclusion to have the operation performed, I removed the testicle in March, '45, which weighed 14 oz. He immediately recovered and was able to go out in two weeks after the operation.

His general health improved, and he was able to perform some labor during the summer and autumn following but late in December, '45, his health began to fail, and as the family had become attached to the Thompsonian practice I did not see him until June, '46, when I made him a friendly visit.

At this time, I found him low and feeble, suffering much pain at times from a tumor presenting itself a little to the left and near the lower part of the ensiform cartilage of the sternum. He informed me that the tumor made its appearance some two months previous to my visit. I examined the abdomen and found quite a large tumor occupying nearly the whole of the left hypochondriac region, it was hard and not very tender on pressure. The pain was acute and lancinating. The digestive organs were much impaired, at times very costive, and again attended with a diarrhoea which produced a general degree of prostration.

I saw him again on or about the middle of August, the tumor had increased much in size, occupying the whole of the left hypochondriac and most of the epigastric regions, descending as low in the abdomen as the umbilicus, producing much pressure upon the stomach, heart and lungs, especially when in a horizontal position. There were many elevations and depressions to be distinctly felt at this time, and a degree of elasticity in the whole tumor. I saw him no more until after his death, which took place on the morning of the 8th of September, at which time, myself, with Dr. Tuttle, of this place, were called to make a post mortem examination, and the following phenomena presented itself. On opening the abdomen a large fungoid tumor was to be seen, filling the whole of the left hypochondriac and epigastric regions, and extending as low as the umbilicus, and fluctuation distinctly felt in all parts of tumor, except on the left side, where it seemed more hard and unyielding on pressure. Adhesions to the peritonium had taken place over most of the surface of the tumor, coming in contact with that membrane and required the scalpel to

separate them. The tumor involved the duodenum, jejunum and the arch of the colon, which extended through a portion of the tumor and it became necessary to divide them in order to remove it. It also involved the aorta and vena-cava ascendens which much impeded the circulation, and had attached itself to the left kidney which also participated in the disease. It was firmly attached to the spine for six or eight inches in extent. The tumor weighed eight pounds, and presented a great number of abscesses containing from one gill to one drop of pus and resembling the medullary part of the brain in its consistency and oily nature and of a variegated reddish color, in some parts approaching to white.

All other parts, were healthy save a slight enlargement of the liver and three or four small abscesses on its surface.

JOHN COOKE, M.D.

Manchester, Vt., September 11, 1846.

ARTICLE V.

Case of Hydrocephalus successfully treated by Iodide of Potassium.

By LYMAN BRACKETT, M.D., of Rochester, Fulton co., Ind.

Josephine S. ætat 6 years, was seized on the first of April, 1846, with the usual symptoms of Hydrocephalus, which continued to progress, in defiance of the most active treatment, given with a view of checking the inflammation and preventing the effusion of serum, the symptoms of which have given the name of hydrocephalus to this truly obstinate and at times, fatal disease. The inflammation continued, and effusion took place (as indicated by the symptoms,) after the usual course had been steadily and perseveringly tried for the space of two weeks. During the last six days of this time she had been lying insensible to sight and sound; pupils very widely dilated and insensible to the strongest light. Continually rolling her head from side to side. Hemiplegia of right side, and partial paralysis of the left. Incessantly moaning, except when she would throw her left hand to her head, and cry out as if in great distress. This happened about every half hour. Vomiting would almost invariably happen when she was raised in bed into a sitting posture. Involuntary passage of foeces and urine. Then after having tried all other custom-

ary remedies, I resolved on using the iodide potassium, knowing she could not long survive in her then condition. I began by giving an aqueous solution of the iodide, (componea of iodide potassium 3*i* to 3*i* water,) gtt. xv. every three hours increasing the dose gradually to 30 gtt. An evident amendment was the next day perceptible, when some soreness of the mouth and bleeding of the gums took place. From thence forward she improved rapidly, and on the fourth day from commencing the iodide, I had the satisfaction of pronouncing her out of danger. The loss of power over the muscles of locomotion and of speech was not, however, perfectly relieved by it, but was restored by the epidermic application of a solution of strychnine along the course of the spinal column. The solution of strychnine was of the following composition:—Strychnine, grs. viii.; acetic acid 3*i.*; alcohol 3*i.* If you think the preceding case is worthy of a place in your Journal you will please publish it. I have made it as brief as possible that it might not occupy too much space.

PART II.—REVIEW.

ARTICLE VI.

A Practical Treatise on the Diseases of Children. By JAMES MILMAN COLEY, M. D., member of the Royal College of Physicians, London, &c. &c. &c. Philadelphia: Ed. Barrington & Geo. Haswell. 1846. pp. 414. 8 vo. (From the Publishers).

The diseases of children have lately received a large share of attention from some excellent observers in the profession, and are just beginning to occupy that rank in the studies of practitioners, to which their frequency and severity, justly entitle them. Still we frequently find physicians in extensive and successful practice, who decline, in most instances, to prescribe for young children, turning them over to the care of nurses or old women, as more competent to take charge of their diseases. Not only is this the case with regard to their internal or *medical* diseases, but also in cases of surgical diseases as congenital hernia, nævi, &c., many of which we have seen neglected for months and years by the advice of medical men. Not only are physicians who neglect the diseases of infants in error, in supposing them more obscure and less amenable to treatment than those of adults, but they thereby, are led to neglect that part of their appropriate duties in which they might be most useful, for every one familiar with the diseases of infants, will agree that they are more easily recognized and more successfully treated than those of adults. Indeed if we except two points, viz: distinguishing cerebral from gastric and intestinal affections and detecting the existence of lobular pneumonia, we know of none of these affections requiring unusual skill for their diagnosis or treatment. The work before us is one of considerable pretension, the author—

"Having received a surgical as well as a medical education, and having been extensively engaged with operative surgery in the country, many years previous to my connection with the College of Physicians, and my residence in London, I have enjoyed singular opportunities of observing the origin and progress of surgical as well as medical cases, and acquiring that discrimination and manual dexterity, which

are necessary qualifications in any one who undertakes to instruct others on subjects requiring a practical knowledge of both branches of the profession."—[Introduction.]

There is, however, one department which is entirely omitted viz: the hygenic treatment of children, for which he refers to the works of Drs. Underwood, Maunsell, and Evanson, and to which we would add Dewees, whose remarks on this head are extremely judicious.

The first division of the work is devoted to the surgical diseases of children, embracing every form of Hernia, Club foot and deformities, diseases of the eyes and eyelids, hydrocele, &c. The remarks upon each of these are brief, just, and present little new or remarkable.

We extract his discription of sanguine tumors of the scalp and refer such of our readers as may be desirous of further information on the subject to a monograph by Dr. Geddings in the Am. Jour. of the Med. Sciences.

"Hydrocephalus Externus, or Cephalæmatoma."—This is a tumour found on the head of the infant generally after a tedious labour, especially when the action of the uterus has been long resisted by the bones of the pelvis. The swelling consists of blood extravasated either between the integuments and the pericranium, or between the latter and the skull. The swelling varies in size from that of a hen's egg to that of a large orange.

"Treatment."—As this disease always disappears spontaneously by the gradual absorption of the blood, all we shall be required to do is to promote that process. With this view the following lotion or liniment should be prescribed:—

R.—Ammonia Hydrochloratis, 3j.
Aquaæ Distillatæ, 3vj.

M. et fiant lotio.

R.—Potassæ Iodidi, 3ij.

Adepis, 3j.

M. fiant Linim. singulis noctibus tumor affricandum.

R.—Linimenti Hydrargyri, 3j.

Fiat limimentum semel quotidie, parti affectæ illinendum.

"When the tumour is very large, Dr. Black advises that it should be punctured or incised to evacuate the effused blood.* Mr. Waffstaff, on the contrary, says this is a bad practice;† and I have never met with any case which required any other remedies than the external applications I have mentioned."

* "Edinb. Med. and Surg. Journal," 1841. † "Lancet," No. 743, p. 308.

Next in order follow diseases of the skin, and we lay before our readers the remarks on Vaccine, with the observation that the facts do not set at rest, as yet, the question in the sense supposed by Dr. Coley.

"When the vaccine vesicle has regularly passed through all these stages, the constitution is afterwards as securely protected against the attacks of small pox as if it had been affected by the natural or inoculated variola; and therefore the practice of repeating vaccine inoculation in the same individual is perfectly unnecessary, as was clearly proved by the observations of Dr. Jenner, and the accumulated experience of all intelligence vaccinators since his time. It has been proposed* that re-vaccination should be performed every five years, and if it should *succeed*, that it may be concluded that such repetition of the disease is not too frequent. The success of repeated vaccination is no proof that the constitution has lost its influence, as cow pox vesicles may be excited as frequently as the surgeon may wish, in most, if not all patients who ever had been susceptible of the disease; and the fact of two successive crops being generated, after the interval of a few days, by Mr. Bryce's test, is a proof that the system is not rendered insensible to re-vaccination by any particular interval of time. To admit that the prophylactic power of vaccination expires at a given time in any individual, and that it may be revived by re-vaccination, amounts to a confession that the primary operation had been imperfectly performed, or that the human constitution had undergone some degeneracy or modification since the discovery of Jenner. The occasional eruption of modified or natural or small-pox, even in the confluent form, after the regular vaccination, is only a proof of some peculiarity of constitution, which appears to prevail in certain families; but repeated vaccination, however perfect, will have no more effect in removing such idiosyncrasy, than in altering the features of the patient.

"When vaccination is imperfect or irregular, it affords no certain protection. Its progress should therefore be carefully observed. One imperfection consists in the absence of the areola and secondary rose-rash; another in the formation of pus in the first instance instead of serum, accompanied with premature inflammation and decadence, and sometimes with ulceration. The cause of these irregularities is sometimes constitutional; as I have found them to occur repeatedly to the same individuals when vaccinated with healthy lymph, taken from different patients, which has produced the perfect disease in others. One of the most frequent causes of failure

* "Wilson on Diseases of the Skin," p. 91.

or imperfection, consists in the practice of inserting vaccine fluid taken at too late a period of the eruption, when it is beginning to undergo the transition from pellucid to opaque lymph. Another cause has appeared to me to consist in a defect in the virus, produced by its modification in a patient labouring under marasmus, or some specific disease. Hence I always recommend the supply to be taken from the vesicle at the earliest possible period, and from the most robust and healthy subject. When the inflammation and scab are remarkably small and premature, the patient cannot be considered safe, and should always be re-vaccinated with lymph taken early, and carefully selected. The success of vaccination depends in some measure on the manner in which the operation is performed. I believe the most certain mode of introducing the lymph is in a fluid state, by means of the lancet, on the point of which it is taken. Another effectual mode is by the aid of a few fine gilt needles, which have been immersed in the virus; and when it is inconvenient or impossible to procure fluid lymph, it may be used in a dry state, either on the point of the lancet or the needle. Ivory points are generally employed for this purpose, but they are objectionable on account of their requiring the puncture of a lancet before their insertion. After the operation is completed, the arm should be left exposed about ten minutes, to afford time for the punctures to dry. Much nicety is required in this simple proceeding, to prevent too much oozing of blood, which is apt to wash away the lymph after it has been inserted under the epidermis. The nurse should also be desired not to wash the arm until the vesicle has passed through all its stages."

In regard to its protective power, however, when properly employed there can be no doubt.

"As to the protective influence of vaccination, that has been sufficiently proved to be quite as great as that of inoculated small-pox: but it must be observed, that when variola occurs in the epidemic form, more cases of modified small-pox will succeed the pestilence than would appear under ordinary circumstances; and the recurrence of small-pox after variolus inoculation was formerly found as frequent as modified small-pox is now after vaccination."

The following remarks upon the treatment of nævi materni are also of interest.

Treatment.—One of the best remedies for varicose excrescence or nævus, is creosote, which may be applied about once a week to the whole of the diseased surface by means of a feather, or camel-hair pencil. By this application twice used,

I succeeded in removing this disease, which occupied thirty square inches of the skin of the abdomen, and which had been only temporarily cured by an extensive eschar produced by hydrate of potash. Creosote has besides this decided advantage over the latter remedy, namely, that of destroying the disease without disfiguring the skin. When the marks appear distinct from each other, every one, however minute, must be touched with the escharotic. Nitric acid will often succeed. I have ascertained from long experience, that this disease is much less apt to return or appear round the circumference, after it has been removed by escharotics, than when it has been extirpated by the knife; and therefore I have of late years discontinued to advise such an operation. Many other remedies have been adopted with various success by different practitioners. The mode of applying nitric acid adopted by Sir Benjamin Brodie, is by using a glass pen dipped into the acid and drawn over the diseased parts, or by puncturing the principal vessels, and afterwards introducing a little acid with the pen.* Nitric acid, as well as creosote, leaves no mark. Dr. Sigmund applies repeated compresses saturated with liquor plumbi diacetatis (or what he calls acetum plumbi),† with success."

The chapter upon diseases of the mouth is full and interesting. Passing over his remarks on aphtha as containing nothing new we would direct the attention of our readers to the subject of "Muguet or Mucosity," which is not often recognized by practitioners as a distinct disease.

"It consists of a secretion of white, thick opaque laminae, adhering to the free surface of the epidermis, or mucous membranes. It is most frequently observable on the tongue, cheeks and fauces, either in distinct spots or patches, or covering the entire upper surface of the tongue. When attentively observed, it will be found to be preceded by slight diarrhoea, or dysentery; and it is a common concomitant or sequence of those fevers which originate in gastro-enteritic inflammation. Being readily conveyed to the delicate skin covering the nipple, it is a frequent cause of those excoriations which affect that part during lactation; but this contagious property is denied by Bacon and Billard. These white, milk-like deposits are readily separated from the epidermis by gentle friction, and are speedily renewed by the inflamed surface." ^{old 421}

Treatment.—As muguet is seldom found unconnected with disease in some other part of the alimentary passage, on which its continuance is dependant, I must refer the reader to those

* "Medical Times," Dec. 19, 1841.

† "British and Foreign Medical Review," Jan., 1844, p. 239.

affections. At the same time, I may observe, that the most simple attack will seldom entirely subside without the assistance of internal medicine, as castor oil, rhubarb, or sulphate of magnesia. In some obstinate cases, it may be found necessary to administer chloride of mercury and jalap, according to the directions given for aphtha. The only local treatment required is the frequent abrasion of the diseased secretion, by means of a lotion composed of ten grains of alum to an ounce of water."

The treatment of gangrene of the mouth consists in touching the sloughing points with concentrated nitric or muriatic acid, if the slough be extensive this should first be freely divided so as to allow the acid to come in contact with the living parts. Tonics and fresh air with cleanliness are essential, and in this region, quinine is often useful, as the defect of constitution, upon which the disease depends, is produced by that unknown cause of intermittent and remittent diseases called "malaria." Gangrene of the mouth he separates from "Canerum Oris, or Sloughing Phagedæna of the Mouth," which latter is very often the effect of mercurial inflammation, and followed by immobility of the jaws, &c. The following is his treatment of this latter affection.

"This disease is rapidly cured at its origin by a few applications of the nitrate of silver. In the more advanced stages, it will be necessary to apply a lotion composed of diluted hydrochloric acid in the proportion of half an ounce or an ounce to a pint of water; and, when the sloughing and ulceration are rapidly extending, the nitric or hydrochloric acid should be applied undiluted, in the manner directed for the treatment of gangrene in the mouth. When the gums are irritated by stumps of teeth, these should be extracted. With respect to internal remedies, few will be required, except such as are necessary to support the strength, in conjunction with nourishing diet and occasional opiates and aperients. In many of the most unfavourable cases, Mr. Wallace, of Dublin, has effected a cure by the internal exhibition of sesquicarbonate of ammonia, in doses varying from five to twenty grains; and Dr. Hunt has successfully treated the disease by giving from twenty to forty grains of chloride of potash, in the course of twelve hours."^{*}

The article on Dentition is very full, and some of the views of the diseases attendant on this state are original, whether just or not we leave our readers to determine.

* "Med. Gazette," April 7, 1843, p. 76.

Dentition.—A knowledge of the process which nature adopts in the formation of the deciduous teeth, is a necessary part of a medical and surgical education; and the general attention which dentition receives during childhood, renders it imperative that I should not omit any information on so interesting a subject in the present treatise.

"In the foetus, about the third month, the margin of each jaw is found to consist of a channel, enclosing a mass of follicles, destined to form the future teeth. At the fourth or fifth month these follicles become more obvious, being then composed generally of eight distinct, globular capsules, which may with care, be elevated by the anatomist from the maxillary bone, so as to display the artery and nerve, which penetrate and form a pedicle for each. Minute perpendicular eminences, the rudiments of the alveolar processes, now present themselves; and as the foetus approaches the period of its birth, the transverse septa are distinguishable, and the sockets become more complete. As soon as the separate cells are formed, the capsules no longer retaining their globular shape, accommodate their figure to their respective alveoli. Each jaw generally contains at birth ten of these partitions,—four for the incisors, two for the canine, and four for the molar teeth. Each capsule being now minutely examined, is discovered to consist of two membranes, the inner one being designed to construct the tooth and deposite its enamel, and the outer one to erect the alveolar processes; and as the operations of these membranes proceed, they are perceived ultimately to constitute the periosteum for the respective teeth and sockets. Between these two membranes a fluid is observable, which is more or less considerable in proportion to the age of the foetus,* and which, as the formation advances, is gradually absorbed. In the inner, or proper, capsule, about the fifth month the gums of the incisive teeth are perceptible at the upper part, next those of the canine, and afterwards those of the first molar teeth. To these primitive gums succeed solitary particles of bony matter in the capsules of the incisors and canines, and a congeries of osseous scales in the first molar membranes. The ossific process then proceeds from the crown of each tooth downwards, and the enamel is afterwards deposited by the inner surface of the same membrane, which had secreted the osseous matter. Should any constitutional disease occur during this delicate animo-chemical process of crystallization, it is rendered incomplete, and the teeth, which are ready for the reception of enamel at the period destined for its deposit, are either partially supplied with or totally deprived of it. Hence, in delicate children we find, after severe illness, the first incisors frequently present horizontal

* Mekel. "Manuel d'Anat. Generale Descript. et Pathol."

patches of imperfect enamel, alternating with bony furrows, entirely deprived of this covering.* The destined period for the deposition of the enamel having expired, this function of the inner membrane ceases; and as the crown of the tooth advances, the capsule, by which it was constructed, being no longer required, is gradually absorbed.

"The growth of the fangs now proceeds downwards, while the alveoli are simultaneously increased in depth; and when the teeth are explored during this process, the crown, or enamelled portion, is found complete externally, while the root remains towards the lower part still in a soft, pulpy, rudimentary state. The process of ossification commences at first externally, and when the outer portion of the crown is complete with its bone and enamel, the cavity is afterwards filled up; and as the root is being prolonged and ossified by the pulp, an inner, vascular membrane is observable, which constructs and lines the internal bony canals, through which the arteries and nerves proceed to their separate teeth. Thus we find that each complete tooth has, at the part which enters the alveolar process, both an internal and external membrane.†

"About the seventh month after birth the two middle incisors present themselves through the gums on the lower jaw, then the two outer incisors above and below, afterwards the eight molars, and, lastly, the four canines; making altogether twenty temporary or deciduous teeth. Some deviation from this proceeding occasionally occurs; the two lower incisors are now and then cut before birth, in which case they soon become deciduous; those on the upper jaw sometimes appear first, and, in some rare instances, no teeth are observed until the expiration of almost two years, which is the period generally occupied for the appearance of the entire set. In one case the two middle incisors, which were first perceptible so late as fifteen months after birth, became quite loose, projected, and were ready to be cast off at the age of twenty-two months. In this instance, as in most others, when dentition is remarkably delayed, a dangerous and protracted disease in the alimentary canal occurred.

"Irregularities in the first set of teeth are rare in consequence of their small size. When they do occur, the deviation usually happens to the cupidati, which are last projected, and may be diverted from their proper situation in different parts of the bony palate. A deficient number, or an entire absence of teeth, may take place. Borelle met with a woman who, at sixty years of age, had never had any teeth.‡

"About the seventh year after birth, the second or permanent set of teeth begin to make their appearance. Previously

* See "A Practical Treatise on the Remittent Fever of Infants," by J. M. Coley, p. 156.

† "Billard."

‡ "Ibid."

to this event the incisors are found loose, being supported principally by the gums, their roots having undergone more or less absorption. When they remain firm at this period, the permanent incisors appear either in front or behind them, being always secreted in new and distinct capsules. The jaws having by this time acquired a great increase of size, the secondary teeth are found larger and more numerous. After the incisors are brought into view, amounting, as in infancy, to four in each jaw, eight bicuspides follow, and take the place of the primary molars; next eight molars shoot up some time from the tenth to the fourteenth year after birth; afterwards four cuspidati; and from the nineteenth to the twenty-ninth year, but usually at puberty, four wisdom teeth appear, one at each extremity of the jaws, and render the number of permanent teeth exactly thirty-two. These teeth, or four of the incisors or the canines, are sometimes wanting; and some instances are said to have occurred, where a third set of teeth has been cut at an advanced age.

"The gums of most of the permanent teeth are visible in the foetus behind and below the milk-teeth.*

"I have in my possession a singular anatomical preparation, which I removed from the rectum of a woman about thirty years of age, who died of mortification of the omentum. It consists of a portion of the upper jaw of an extra-uterine foetus, containing two incisor teeth and a cuspidatus, whose crowns are complete, and whose roots are enclosed in their respective capsules. Adjoining the cuspidatus is perceptible a primary molar tooth, which has been displaced and inverted, and continues adherent to the periosteum of the canine tooth by means of its investing membrane, which assumes the shape, and appears to have performed the office of a gubernaculum, about half of its fang having been absorbed. The particulars of this extraordinary case are recorded in the 'Edinburgh Medical and Surgical Journal,' Vol. vi. p. 50.

"*Diseases of Dentition.*—The following remarks of Guersant respecting the vulgar and unfortunate prejudices prevailing on the subject of dentition, and its supposed influence in producing diseases with which it has no connection, are so appropriate, that I am induced to introduce them for the notice of my readers:—

"On attribue dans le monde la pulpart des maladies de l'enfance au travail de la dentition. La difficulté d'observer les maladies du premier âge, et le peu de connaissances positives que nous avons sur cette partie de la pathologie, ont contribué, à enraciner cette opinion: et ce préjugé, résultant de notre ignorance, est ensuite devenue populaire, commun, à tous les autres préjugés en médecine."†

* "Cyclopaedia of Practical Medicine." Art. Dentition.

† "Dict. de Med." en 81 vol., t. 6. Art. Dentition, par M. Guersant.

"It is lamentable to notice the ignorance displayed by the profession, as well as the public, on this subject; every concomitant disease, the exact nature of which is not obvious to their apprehension, being attributed to the teeth. To enumerate all the complaints thus believed to be induced by dentition would be a waste of time.

"The diseases peculiar to dentition are such as arise from local inflammation. The rapid growth of the gums and alveolar processes, and the simultaneous activity of the dental capsules, require a corresponding supply of blood and nervous energy. Hence the flushings in the face, increased heat of the head, and cerebral excitement about that period. To this cause have been improperly ascribed those effusions of blood in the alveolar processes, which have been followed by destruction of the capsules and the alveoli. Two instances of this kind evidently occasioned by cold and accompanied by inflammation in the mucous coat of the alimentary canal, and a congested state of the liver, are related by Billard. In the first, an infant eighteen days old, was discovered an effusion of blackish fluid blood in three alveoli of the primary teeth. The incisive teeth and part of the germ, which was not ossified, floated free and detached in the effusion, which formed the tumour; the bony crowns of the teeth were softened, reddish, and almost macerated in the fluid. Some points of muguet were found at the inferior extremity of the oesophagus, red striae traversed the surface of the stomach, and the mucous membrane at the end of the duodenum was thickened and tumefied. Near the valve of Bauhin six follicular plates, very red and much swollen, were met with; and the liver was gorged with blood.* In the second case, which also proved fatal to an infant twenty-six days old, the tongue and roof of the mouth were so affected by muguet that the nurse was unable to suckle him, and he vomited his food directly after he had taken it. Great heat of the skin and thirst occurred every evening, and the muguet extended itself. The gums in both jaws then became swollen, and deglutition almost impossible. The swelling in the upper lip made rapid progress, and the face was oedematous. Violent cough and a purple ecchymosis supervened before death. On dividing the swelling on the gums, it was found to be occasioned by blackish grumous blood, in the midst of which floated the dental gums, which, totally detached, escaped with the blood that flowed from the tumour. The stomach was contracted and wrinkled, and its mucous coat thickened and intensely red. The liver was distended with blood, and all the abdominal venous system in a very remarkable state of congestion. The tongue was the seat of a distinct oedematous swelling.†

* "Traité des Maladies des Enfants," p. 266.

† "Traité des Maladies des Enfants," p. 267, 268.

"These cases and dissections prove the co-existence of extensive disease in the stomach as well as the mouth, probably the result of exposure to cold at the latter end of autumn. As the attack commenced in each infant a few days after birth the process of dentition could have had no share in the cause of the disease. In short, effusion of blood into the alveoli, destruction of the processes, and exfoliation of the capsules of the teeth, cannot take place, except from external violence, or inflammation brought on by cold, or some constitutional derangement.

"When the milk-teeth are about to penetrate the gums, the absorbents remove the intervening substance, and thus, first one point of the apex of the tooth, and then another, is exposed to view. Sometimes the cuticle is so distended that inflammation supervenes, which, terminating in the effusion of serum or blood, detaches a portion of epidermis, which assumes the character of a small vesicle. Artificial aid is unnecessary, unless the symptoms of both local pain or constitutional irritation be present, when the inflamed or swollen gum should be divided with a crucial incision down to the presenting surface of the tooth.

"The principal diseases of the first set of teeth are caries and inflammation in the periosteal membranes, terminating in abscess, or what is commonly called *gum boil*. The first effect of inflammation in the periosteum is to excite pain, tenderness, and swelling in the gum adjacent to the tooth, and an effusion of fluid between the fang and its investing membrane, which is thus covered into a kind of cyst. Successive attacks of inflammation at length end in the formation of pus, which either bursts through the tumour in the gum, or may be artificially opened. In some cases after the abscess has burst or been opened, a fungus springs up from the diseased membrane lining the cavity. In other cases, the pressure of the abscess having produced absorption of a portion of the alveolar process at its lower part, it effuses its contents through the aperture thus formed, and the matter insinuates itself along the surface of the lower jaw, and forms an external tumour near its base. This tumour is at first hard and discoloured, but in the course of time it ultimately inflames, and bursting or being opened, leaves a puckering in the integument, which adhering to the bone, remains a permanent blemish. When the diseased tooth, which is the cause of the mischief, is removed before external redness takes place, the tumour ultimately retires and leaves the skin unblemished.

"Children are subject to facial neuralgia from inflammation in the periosteal membranes of the teeth. This observes the same periodicity as it does in adults. What is called caries is a decay in the osseous part of the tooth, the nature of which has never been satisfactorily explained. It sometimes com-

mences externally, at other it begins under the enamel, which is afterwards broken off and exposes the cavity. By those who believe that the teeth retain some minute and invisible kind of vascularity after they are completely formed, which others deny, caries is supposed to be a species of ulceration in the bone; yet no exfoliation ever takes place, and nothing like granulation has ever been observed in the carious cavity. When human teeth which have been long extracted from dead bodies, and when those formerly made with the tusk of the hippopotamus, have been artificially fixed in the human mouth and exposed to its secretions, they are found to undergo the same decay and present the same carious cavities as those found naturally formed in the respective sockets. Hence we may presume that these carious cavities are the result of some chemical process; and this supposition is strengthened by the fact that the process of decay is suspended by excluding the saliva and the external air by the introduction of pure gold, which is insoluble by the salivary secretion.

"When the digestive organs are so deranged that the supply of chyle is interrupted, and a species of scurvy is the result, the gums are apt to bleed from the slightest touch; and ulcerations also occur under such circumstances in the gums, where they are connected with the teeth.

"During the primary dentition it is not uncommon for the bowels to become constipated. This proceeds from the determination of blood towards the alveolar processes, and the consequent enervation of the alimentary canal. It is a most unfortunate mistake, into which medical men as well as the public are apt to fall to attribute a relaxed state of the bowels to dentition. It is impossible upon any sound pathological theory, to attribute either dysentery or diarrhoea to inflamed gums or alveoli; and in practice this gratuitous theory is followed often by the most unhappy and fatal results, particularly when the popular and routine custom of administering opium with astringents is adopted, or reliance is placed on needless lancing of the gums, and the muco-intestinal inflammation is neglected and unrelieved by appropriate remedies.

"*Treatment.*—Those inflammations of the gums, accompanied with muguet, which have been described by Billard, should be treated immediately by the application of a leech or two to the inflamed parts; and the lotion I have recommended, when speaking of muguet, should be regularly used. The congested state of the vessels of the stomach and liver will be most appropriately treated by small doses of castor oil, or rhubarb and magnesia. It must, however, be observed, that the only chance of rescuing the patient at so tender an age will be afforded the physician at the very commencement of so severe a disease.

"The inflammation in the periosteal membrane of the tooth

is best treated by the application of a leech to the tumefied gum, which will generally subdue it at once, and prevent the suppurative process. The most safe and pleasant mode of introducing the leech into the mouth, is to pass a needle and thread transversely through the animal, which should be afterwards placed within a glass tube. When suppuration takes place, the abscess may either be left to burst spontaneously, or it may be opened at a proper period with a lancet. As soon as the tenderness in the gum has subsided, the tooth should be extracted, as the patient cannot expect to enjoy any long immunity from a repetition of the abscess. Those cases which terminate in fungus, or in the formation of a tumour at the base of the jaw, should be treated in the same manner; as no other remedy than the extraction of the tooth can be relied upon to cure the fungus, or to prevent the disagreeable and lasting deformity, which an abscess connected with a diseased tooth would otherwise inflict on the face of the child.

"The only permanent cure for tooth-ache, occasioned by a decay in the tooth, is extraction. As the first set of teeth are only temporary, the process of introducing a round file, and removing the decayed surface, and filling up the cavity with gold, would be superfluous for a child. The front teeth ought to be extracted with a pair of small forceps, and the grinders by the key instrument, or by an instrument lately introduced by the dentists, which acts in the manner of a lever, with the assistance of a strong and practised hand. In using the forceps, the dentist should make use first of a slight rotatory motion, to separate the tooth from the alveolar process, and then extract it; and when the key instrument is employed, he should apply the left fore-finger on the middle of the convex surface of the claw of the instrument, to prevent its slipping while he is extracting the tooth. For this purpose, the claw will be found greatly improved by the addition of a small stud at the part above-mentioned; and with the key instrument, thus improved, the smallest stump may be removed with facility, provided the gum has been previously lanced to a sufficient depth, and with much more ease and despatch than by the barbarous instrument, called a punch, which ought long ago to have been exploded.

"The front permanent teeth are subject to irregularity, and require attention from seven to eighteen years of age. When the incisors are forced out of their proper situations by any of the temporary teeth, the latter should be removed; and when the cuspidati project, and endanger the upper lip at any time under eighteen years, the adjoining bicuspid should be extracted. After the patient is above eighteen, the irregular canine tooth should be removed, as there is no chance beyond that age of the errant cuspidatus occupying the place of a bicuspid the growth of the jaw being then complete.

"A fungous and bleeding condition of the gums connected with scurvy, is only to be cured by proper food and attention to the digestive organs. The food should consist of fresh meat and vegetables, and the child should take a mixture composed of diluted sulphuric acid and disulphate of quina, drinking lemonade through the day as a beverage. The bowels should be relaxed every third day with chloride of mercury and jalap. A severe case of this kind, with other alarming symptoms of scurvy, as vesications and ulcers in different parts of the body, occurred in my practice lately in a boy, who had been at a cheap school, where the diet consisted almost entirely of red herrings and other salt fish. The ulceration in the gums may be treated with a lotion composed of three or four grains of nitrate of silver to the ounce of water.

"The most proper remedy for facial neuralgia, before the first set of teeth have fallen out, when the teeth are decayed, is extraction. When the disease occurs afterwards, it should be treated as it is in adults, by means of disulphate of quina, which may be given in the dose of one grain three times a day, and, should that fail, by five minims of the solution of the arsenite of potash once in six hours. It must be observed, however, that when there exists any chronic inflammation or abscess in the periosteum of the tooth, the only effectual remedy is the entire removal of the tooth.

"Those cases in which constipation is present and obstinately continued by the process of dentition, must be treated as long as that condition prevails, by a tea-spoonful of castor oil, or a small dose of salts and senna, every morning. No fears need be entertained respecting the habit of giving repeated aperients, while dentition is proceeding, as the bowels assume their natural functions, as soon as the teeth are developed. When the costiveness is unusually obstinate, a dose of chloride of mercury and jalap must be given every third or fourth morning."

We would particularly recommend to the attention of practitioners the author's account of "Diphtherite, or Membranous Sore Throat," of which several examples have been met with lately in this city.

"It begins with inflammation of the mucous membrane of the soft palate, tonsils, and pharynx, terminating in the secretion of a false membrane, *without any ulceration or destruction of the true skin*. As the inflammation advances, it is apt to extend to the larynx, and to produce the symptoms and fatal results of croup. In one form of the disease, gangrene or sloughing of the inflamed parts takes place, particularly in children of feeble constitution. The attack begins with a

little fever, attended with a slight difficulty in swallowing. On inspecting the throat the tonsils are perceived to be swollen, and small portions of white or yellowish lymph may be seen, resembling muguet, on different parts of the soft palate and pharynx. After a short time these deposits of lymph assume a grey colour, and acquire an offensive odour; and a copious discharge of saliva flows from the corners of the mouth. At this period the cervical glands become inflamed and swollen. At length the grey lymph, constituting the false membrane, either falls off in a mass, and is ejected through the mouth, or it is separated in fragments and discharged by degrees, and is often reproduced."

"In the more malignant cases, the disease extends into the air-passages, producing symptoms of laryngeal and tracheal inflammation. First hoarseness is observed; then a harsh, suffocating cough, accompanied with a croupy sound and an anxious expression, followed by a pale, cadaverous countenance, with the eyes sunk in their sockets; hurried and feeble pulse, cold skin; and terminating, when unrelieved, in irresistible stupor, a purple colour of the lips, face, and extremities, and speedy death. When the bronchial tubes are visited by this disease, the cough becomes more frequent, the breathing more rapid, and accompanied with a mucous or rattling sound, and the patient sometimes expectorates shreds or tubular portions of lymph presenting a membranous appearance."

"Treatment.—As the danger of this disease is in proportion to the nature and extent of the false membrane, our principal reliance must be placed on local remedies. Of these the most effectual are hydrochloric and nitric acids, either of which may be conveyed to the diseased parts by means of sponge or linen rag fastened to a piece of cane or whalebone. The acid should be rubbed or pressed firmly on the surface of the parts affected, so as to insure its contact with the inflamed membrane and the detachment of the lymph. In very slight cases resembling muguet, a lotion composed of two grains of bichloride of mercury, or ten to twenty of nitrate of silver, to an ounce of distilled water, will be found sufficient to separate the excretion and remove the subjacent inflammation, the progress of which must be carefully watched and promptly arrested. The operation of these powerful stimuli on the congested and inflamed surface is that of producing contraction, and restoring the natural action of the minute vessels."

When all other means fail laryngotomy has sometimes been resorted to with success. A method of operating, quite novel, is recommended, said to have been invented by Mr. Hilton, and of which the description is extracted from Guy's Hospital reports. It is as follows:

"In this operation I used a curved trochar and canula, the canula being oval from side to side, and the trochar lancet-shaped, much flattened above and below, and cutting at its point and edges. This instrument may be passed through the crico-thyroid membrane into the larynx, or through the trachea with the greatest facility, the larynx being held steady by the surgeon's left hand: indeed, it is scarcely necessary to divide the skin with a lancet before attempting its introduction; yet, with the circumstances permitting, I think that a good previous step. The forms of the cutting instrument and the canula are so adapted that the canula presses upon the whole of the cut surface, and thus prevents any internal bleeding; and, further, as regards, laryngotomy through the crico-thyroid membrane, the oval outline of the canula is the form best adapted to the form of the space between the cartilages. It is said some persons cannot bear a canula in the larynx or trachea. I apprehend that when this inconvenience arises, it occurs from the end of the canula touching the posterior part of the larynx or trachea, a point easily determined at the time by knowing the length of the canula, and passing a probe to its then internal extremity. This contact it is difficult to avoid with a straight or slightly curved canula: and such a one is also very liable to be blown out of the larynx by the patient coughing. With the intention of avoiding these inconveniences, it is better to use a trochar and canula very much curved, which, when introduced, hooks itself into the larynx or trachea, and is very secure in its position, with its internal aperture presenting itself completely to the centre, and in the axis of the trachea, in which it is placed, and so offering the greatest facility to the passage of the air during respiration and for the exit of mucus.

"This operation with the trochar and canula may be done well, and almost in an instant, by any medical man,—is not in itself in any way dangerous,—not painful,—and almost invariably gives immediate relief, imposing very little inconvenience on the patient at the time or subsequently: and when the necessity for the artificial opening no longer exists, the aperture closes with facility, and leaves but little cicatrix."

It is obvious that this operation would only be admissible where no foreign substance or false membrane required to be extracted.

From the remarks on flatulence we extract the following prescription for that troublesome affection.

"R.—Magnesia, 3ss.
Sachari albi, 3s.
Olei Carui, gtt. j.

Spiritus Ammon foetid. 3ss.

Tinct. Sennæ, 3ss.

Liquoris calcis q. s. ut fiant 3jss.

"Half a tea-spoonful, or a tea-spoonful, to be taken when the flatulence is troublesome."

We will pass by the subjects of remittent fever, cholera, and the diseases of the stomach and bowels, since our object is rather to enrich our pages with valuable facts, than to point out imperfections in the work. It is quite obvious that the remittent fever, prevalent to a great extent in these western states, and common to children and adults, is entirely unknown to our author. The same is also true to nearly the same extent, in regard to cholera infantum, which is unknown in the middle and northern parts of Europe.

From the chapter on Nasal Catarrh we take the following which, "if true," may be useful to the horse as well as the physician.

"The indication we have to fulfil, is to restore tone to the mucous membrane, which may be affected by the following mixture:—

"R.—Cupri Sulphatis, gr. iv.

Quinæ Disulphatus, gr. vi.

Acidi Sulph., dil. m. iij.

Aquæ Distilatæ, 3ij.

M.—Capiat cochl. i. minimum bis die.

"Should the discharge not be diminished within a few days, the dose of the sulphate of copper must be increased gradually until slight sickness is produced. The modus operandi of the copper, to which I attribute the principal benefit of this mixture, is that of restraining the mucous secretion from the follicles of the stomach. By continuous sympathy, this astringent operation of the medicine is extended to the Schneiderean membrane, which rapidly reduces its mucous and purulent discharges. This effect of sulphate of copper on the Schneiderean membrane of the horse, is still more rapid and remarkable; as any one may observe by exhibiting one drachm every day to that animal, afflicted with the most chronic inflammation and muco-purulent discharge from the nostrils, uncombined with glanders. He will find in the course of a week, the mucous membrane of the nose, lose its dark red, inflamed appearance, and resume its natural grey colour, which favorable change will be accompanied with a total cessation of the morbid discharge."

Omitting a great number of interesting articles we extract the following on "spasm of the glottis," or "thymic asthma," with the remark that the view here taken is the one now almost universally adopted.

"Cerebral Croup, Laryngismus Stridulus, or Spasm of the Glottis."—This disease was minutely described by Dr. John Clark, in his Commentaries on the Diseases of Children; and his description is so accurate, that I am induced to extract it verbatim:—

"This convulsive affection occurs by paroxysms, with longer or shorter intervals between them, and of longer or shorter duration in different cases, and in the same case at different times.

"It consists in a peculiar mode of respiration, which it is difficult accurately to describe.

"The child having had no apparent warning, is suddenly seized with a spasmotic inspiration, consisting of distinct attempts to fill the chest, between each of which a squeaking noise is often made; the eyes stare, and the child is evidently in great distress; the face and the extremities, if the paroxysm continue long, become purple, the head is thrown backwards, and the spine is often bent, as in opisthotonus: at length a strong respiration takes place, a fit of crying generally succeeds, and the child, evidently much exhausted, often falls asleep.

"In one of these attacks a child sometimes, but not frequently, dies.

"They usually occur many times in the course of the day and are often brought on by straining, by exercise, and by fretting, and sometimes they come on from no apparent cause.

"They very commonly take place after a full meal, and they often occur immediately upon waking from sleep, though before the time of waking the child had been lying in a most tranquil state. As the breathing is affected by these paroxysms, the complaint is generally referred to the organs of respiration, and it has been sometimes called chronic croup, and is altogether of a convulsive character, arising from the same causes, and is relieved by the same remedies as other convulsive affections."

"Accompanying these symptoms, a bending of the toes downwards, clenching of the fists, and the insertion of the thumbs into the palms of the hands, and bending the fingers upon them, is sometimes found, not only during the paroxysm but at other times.

"Clenching the fist with the thumb inserted into the palm of the hand, often exists for a long time in children without being much observed, yet it is always to be considered as an

unfavorable symptom, and frequently is a forerunner of convulsive disorder, being itself a spasmodic affection.*

"This disease seldom appears before the third month, or after the third year. This may be accounted for partly by the gradual increase in the aperture of the glottis, which continues to proceed until puberty. It is a frequent consequence of dysentery, and concomitant with marasmus, especially in children who are dry nursed. Dr. Clarke, in his above description of the disease, has omitted to mention a swelling sometimes migratory and sometimes permanent, on the back of the hand or foot, and sometimes on the face, which commences rather suddenly after one of the fits in the advanced stage of the complaint. The swelling consists of serum, which is effused into the cellular membrane, and which appears to me to result from the temporary plethora and debility in the extreme vessels, occasioned by the obstructed circulation in the lungs during the paroxysm. This swelling is of the same nature as that which appears suddenly on the arms, the hands, the feet, and other parts of the body, and which migrates from one place to another, in patients advanced in life, and who have been reduced in strength, and been suffering a long time with repeated paroxysms of alarming obstruction in the pulmonary circulation, arising from fatal disease in the heart and pericardium.

"Various opinions have been formed respecting the nature and cause of this alarming disease. Dr. Clarke, and most other writers, have considered it as a spasm of the glottis. Dr. Hue Ley believed it to arise from paralysis of the recurrent nerve, occasioned by the pressure of enlarged cervical glands; and it is the opinion of Kopp, Hirsch, and most German authors, that it is due to the enlargement of the thymus gland. On the other hand, Caspari, Pagenstecher, Roesch, Hackman, and most British physicians, as well as Dr. Clark, have considered the disease as purely spasmodic. As the disease proceeds, it generally terminates in epileptic convulsions, especially in delicate infants; and it is not uncommon for the child to expire during one of these attacks. On this account Dr. Clarke supposed that in every case the brain is at the time organically affected either directly or indirectly. He believed this organ to be directly affected when the spasm arises from perenitis or hydrocephalus; and, indirectly, when it proceeds from an overloaded stomach indigestion, inflammation in the lungs or pericardium, from the pressure of glandular swellings, or when it occurs during the progress of infantile remittent fever or marasmus. In proof of this opinion, Dr. Clark states that he found in one patient after death, a collection of purulent matter in the pericardium, and in another fullness of the vessels and water in the ventricles of

* *Commentaries on the Diseases of Children*, by John Clarke, Esq., M.D., p. 86—89.

the brain. In addition to some cerebral affection, Kyll attributes the spasm of the glotts to an inflammation of the cervical portion of the medulla spinalis, and to an alteration in the structure of the cervical and thoracic glands, which compress the pneumogastric nerves; and, according to Dr. Marshall Hall, it may originate in inflammation of the gums, disease of the brain, or derangement in the alimentary canal. There is no doubt the cause of this disease is occasionally traceable to one of the nervous centres. That cases, however, will be found to originate in the last cause Dr. M. Hall has enumerated, we have abundant proof every day; and I hope to be able to show that it is almost invariably the cause of the disease. In a fatal case, which occurred in my own family, the only morbid appearance found on dissection was a large exostosis growing on the inner surface of the occiput, which compressed the cerebellum and produced chronic inflammation of the dura mater. In this patient no disease was discoverable either in the cervical or thoracic glands. In another fatal case, also in my own family, in which the spasm was almost continual before death, the only morbid appearance found on examination was inflammation in the left phrenic nerve, as it passed over the pericardium. With respect to dentition, I have never found the disease in any manner connected with that process. In one patient the gums had been lanced most unmercifully, down to the alveolar processes, by the practitioner in attendance, and salivation had been induced without any relief having been afforded; and as the case is full of interest, and tends to confirm the view I have long taken of the general cause of spasm of the glottis, I will presently relate the particulars of it. There is no doubt that certain infants are liable to this disease from various causes; but most of the cases, except the two fatal ones I have mentioned, which have occurred in my practice, have arisen from an excited state of the laryngeal nerves, produced by the pressure of undigested food in the stomach or duodenum, or some portion of the other small intestines. In these cases, when the stomach has been the original seat of the disease, the paroxysm has always occurred after a meal; when the duodenum or the other small intestines have been its seat, the fit has not taken place in less than an hour after taking food, when it has always been immediately followed by epilepsy. The morbid condition of the stomach has been preceded by imperfectly cured remittent fever, or by a neglected state of the bowels; and on examining the intestinal discharges, after the operation of opening medicine, they have been found undigested, no alteration having been made in the appearance of the food during its passage along the alimentary tube. Hence, when panada has been the food given to the child, the evacuations will be found to consist of the bread with which it was made, per-

fectedly unaltered. In these cases, I apprehend there is a deficiency of gastric juice and mucus in the stomach, which is from that cause rendered irritable by the presence of food, for which it is not properly prepared; and when the crude aliment is propelled into the duodenum, and the natural secretions of that bowel, and the discharges from the liver and pancreas are either absent or defective, it appears that its mucous coat is impatient of its contents, and the nerves with which it is supplied excite the distant muscles of the larynx into spasm, on the same principle that the morbid secretions in cholera, irritating the mucous surface lower down the canal, excite the muscles of the legs and abdomen into spasmodic action; and the successful practice of Hackmann, in the administration of musk and oxide of zinc in chronic cases, appears to illustrate this analogy. As soon as the digested food has passed from a healthy stomach into the duodenum, the pancreas and the biliary ducts pour out their tributary streams, which unite with the chyme and the mucous secretion of that intestine effused from its numerous follicles. When the concurrence of these secretions is prevented by any cause, the symptoms which have occurred to my observation, when I had reason to suppose the food had arrived at the duodenum, have led me to believe that the inner surface of that intestine had in such cases acquired a morbid sensibility, which had deranged the healthy functions of the paria vaga and the nervous centres.

"As far back as the year 1723, Richa,* and 1726, Verduis,† described this disease, and referred its cause to hypertrophy of the thymus gland. In 1830, Kopp‡ published a memoir on this subject, and as he also considered the thymus gland to be in fault, the affection was called after him, "the thymic asthma of Kopp." Frank also asserted that anatomists often found the thymus and bronchial glands tumefied. In 1836, Dr. Hugh Lee, to whom I have before referred, published an essay on this disease, which he denominated laryngismus sibilans. He adopted the same view with respect to the pressure on the laryngeal nerves in every instance; and he endeavoured to account for the crowing inspiration, by supposing that the pressure of the enlarged cervical glands, &c., produced paralysis in the nerves in question. Dr. S. Merriman also appears to have entertained a belief that the disease is occasioned by the pressure of glandular swellings.|| On the contrary, Dr. Kerr denies that pressure on the nerves, or dentition, has any effect in producing the complaint; and Dr. Marshall Hall, one of the best physiologists of the day, thus expresses himself:—

* "Constitutiones Epidemice Taurinenses." † "Dissertatio de Asthma Puerorum."

‡ "Denkwärdigkeiten in der Acetylischen Praxis."

|| "Underwood on the Diseases of Children," ninth edition, p. 142.

§ "Edinburgh Med. and Surg. Journal," vol. lviii., pp. 334 to 335.

" It has been recently attempted to found the pathology of this interesting disease upon observations such as that adduced by Dr. Merriman, but I think unsuccessfully.

" In the first place, as far as my memory and judgement serve me, the cases adduced to support this view are not cases in point, but, in reality, cases of other diseases.

" Secondly, supposing pressure upon the par vagum to exist, it would induce totally different phenomena from those actually observed in this disease, and it would not explain the series of phenomena which actually occur in it; for,

" 1. Such pressure would induce simple *paralysis*.

" This would, in the first place, affect the recurrent nerve and the dilator muscles of the larynx: it would induce a partial but constant closure of that orifice,—a permanent state of dyspnoea, such as occurred in the experiments of Legallois, or such as is observed to be excited in horses affected with the 'cornage' or *roaring*.

" Secondly, it would induce paralysis of the inferior portion of the pneumogastric nerve, with congestion in the lung or lungs, and the well known effects upon the stomach of the division of this nerve.

" 2. The disease in question, on the contrary, variously designated 'peculiar convulsion,' 'spasm of the glottis,' &c., &c., is obviously a part of a more general *spasmodic* affection, and frequently induced, most frequently comes on in the midst of the first sleep, in the most sudden manner, receding equally suddenly, to return, perhaps, as before, after various intervals of days, weeks, or even months. Very unlike paralysis, from any cause!

" 3. It not unfrequently involves, or accompanies, as I have said, other affections, indisputably *spasmodic*, as distortion of the face, strabismus, contraction of the thumbs to the palms of the hands; of the wrists, feet, toes; general convulsions! sudden dissolution! a series of phenomena totally unallied to paralysis.

" 4. Indeed, the larynx is sometimes absolutely closed, an effect which *paralysis* of the recurrent nerve, and of its dilator muscles, cannot effect.

" 5. Paralysis, from the pressure of diseased glands would be a far less curable disease, a far less variable disease, a far less suddenly fatal disease, than the croup-like convulsion.

" Thirdly. Almost all recent cases are at once relieved by attention to three or four things, viz.:—the state, 1, of the teeth; 2, of the diet; 3, of the bowels; and 4, by change of air. They are as obviously produced or reproduced by the agency of errors in one or more of them.

" Fourthly. In fact, the croup like convulsion is a *spasmodic* disease, excited by causes situated in the nervous centres, or eccentrically from them. In a case of spina bifida, a croupy

and convulsive inspiration was produced by gentle pressure on the spinal tumour. In cases from teething, the attack has been produced and removed many times, by teething, and by freely *lancing* the teeth, by crudities, and by emetics and purgatives, by change of air, &c.

"Fifthly. There is a series of facts which prove the connexion of this disease with other forms of convulsions in children, and with epilepsy in the adult subject.

"Sixthly. In protracted cases, congestion and effusion within the head occur, as *effects* of this disease.

"Lastly. Innumerable cases of undoubted croup-like convulsions have occurred, in which no enlarged glands would be detected in any part of the course of the pneumogastric nerve."

"Treatment.—When the patient is florid and plethoric, especially when general convulsions have followed the attack, and the head is hot, a few leeches must be applied to one of the temples, and a purging dose of chloride of mercury and jalap should be given every second or third day, according to the severity of the paroxysms. The proper proportion of the chloride will be one grain to four of jalap for an infant one year old, the dose being double that strength for the second, and treble for the third year. The evacuations must be examined, when they will be found to contain undigested food, and probably a quantity of highly offensive, dark coloured mucus. Although I have never seen any benefit from lancing the gums, yet should they be prominent and inflamed, from the pressure of the subjacent deciduous teeth, they may be lanced. It must, however, be borne in mind, that when the gums are tumefied and inflamed, the relief to be expected from their incision will be diminished in proportion as the child is advanced in age. In performing this operation, all that is required will be to divide the gums crucially down to the teeth, which should always be distinctly perceived by the touch to be near the surface previously to the operation. If the child is dry-nursed, a wet-nurse should be provided; or, if this cannot be done, the food should consist only of barley-water, or thin gruel prepared from grits, and passed through a fine sieve. When the child is three or four month old, a wine-glassful of this food will be sufficient about once in two hours during the day. No animal food, nor rusks, nor bread, nor milk, should be allowed such an infant, until all its primary incisive teeth have advanced through the gums, when, if the disease has subsided, he may take some of those articles of diet. He should be taken into the fresh air every fine day, and not confined to a hot apartment. His head must be kept cool, and if he has not sufficient hair to dispense with his cap, one as thin as possible should be worn. I have often known severe paroxysms brought on by a heated room, and by too

much clothing about the head. Especial care must be taken to avoid mental pain or excitement, as the attacks of croupy inspiration are very apt to be induced by sudden passion.

"The opposite variety of the disease,—that which appears in delicate, pale, and sickly infants—never requires bleeding. The powder, composed of chloride of mercury and jalap, must be administered every second or third morning, and on the intermediate mornings a tea-spoonful of castor oil. This plan must be pursued until the stools become natural in smell and appearance: for as long as they consist of crude, undigested materials, or present the vicious, offensive mucous secretions peculiar to this disease, which I have described as resembling undiluted white lead paint, the fits of crowing inspiration will not fail, from time to time, to occur. So long, too, as these alvine discharges continue, emaciation will proceed, and the muscles will remain soft and flaccid. Such patients, when the state of the intestinal secretions and discharges are neglected, and appropriate treatment is not adopted, soon become afflicted with marasmus; the paroxysms increase in frequency and severity, and epilepsy following every attack, in a short time exhausts, and ultimately destroys life. These feeble and pallid infants receive no relief from lancing of the gums, nor, as I have said before, from other local bleedings; on the contrary each successive loss of blood increases the malady; and, when the seat of the disease and the proper treatment are overlooked, such infants become miserable objects, having one or both hands and feet hanging down, and distorted with a continued contraction of the flexor muscles; anxious, irritable, and appearing every moment to expect a fit, which each time threatens to destroy life. As soon as the morbid secretion of mucus has disappeared, the chloride of mercury and jalap must be discontinued, and the castor oil should be regularly repeated, either every morning, or every second morning, to obviate costiveness, and thereby prevent a recurrence of the attacks. At this period, great benefit will be derived from pure air; and, if the child should live in the town, he should be removed into a warm and dry situation in the country. The diet suitable for this variety will consist of barley-water or thin gruel, strained, till the first eight front teeth have escaped through the gums, when he may be allowed, with advantage, mutton or veal broth, and the yolk of an egg, boiled two minutes, once every day. In the feeble children subject to this disease the process of dentition begins prematurely; and this is one cause of the appearance of the symptoms. The determination or relatively increased flow of blood to the alveolar processes and dental capsules, necessary for the development of the teeth and the deposit of enamel, being, in these weak and irritable children, an exhausting effort of the vital principle,

which deprives the alimentary canal of its due and accustomed share of nervous energy, the secretions in the chylopoietic viscera and the peristaltic action of the stomach and intestines are diminished, and indigestion and costiveness are the result. The vital processes of chylification and sanguinification are thus diminished in girls of feeble constitution, during the development of the ovaries preparatory to the process of menstruation. In these the excitement of the reproductive organs, necessary for their rapid growth and maturity at the destined period alluded to, attracts to those organs a temporary excess of the vital principle at the expense of the organs of supply; in consequence of which the natural action of the bowels is retarded, the various secretions necessary for nutrition are interrupted, the blood is ultimately deprived of its due portion of fibrine and red globules, and the condition of the sanguiferous circulation called anaemia, is established. The same principle will be found to operate in pathology, as well as in the natural development of particular organs. In all those varieties of mania, which are of a remittent character and in which a connection may be traced with the digestive organs, we find the bowels in so torpid a state, as to require the frequent or constant use of purgative medicines. So, also, in some, especially scrofulous inflammations, to which the eye is subject, we find, during the continuance of the local excitement, such a torpid state of the alimentary canal, as requires a constant administration of purgatives.

"In some scrofulous children, I apprehend a state of chronic inflammation in the muciparous glands and villous tunic of the small intestines, similar to what takes place in the mucous coat of the eye in purulent ophthalmia, occurs, and is the source of the copious discharge of muco-purulent matter, which I have observed in some cases of disease, accompanied with spasm of the glottis. Such cases require the same persevering use of castor oil, or other purgative, as I have recommended; and, when curable, do not admit of cure or relief from any other treatment. The stimulus of purgative medicines, in such cases, carries off these morbid secretions, and, at the same time, excites the secretory vessels into more healthy action."

"Hooping-Cough, or Pertussis."—This is one of those diseases which on account of its frequent occurrence, is unfortunately too often left to the exclusive management of nurses. The consequence is, that many children annually perish from bronchial or pulmonary inflammation, excited by neglect or improper treatment, or remain sufferers through after-life from asthma, generated by dilatation of the bronchial ramifications, or by vesicular emphysema.

"Most English physicians consider hooping-cough to be

contagious as well as epidemical. French medical writers believe it to be epidemical. It rarely attacks young infants and old persons, although no age is exempt from it. One of my patients, who was only three months old when the disease began, died from convulsions, excited by the cough, within fourteen days. Pertussis attacks the individual only once in his life, commencing in the autumnal, winter, or vernal months, and usually subsiding during summer. It has two principal stages, the Catarrhal, and the Convulsive, or Spasmodic; and some writers add to this the stage of decline. The first stage commences in some patients as a common catarrh, with a frequent, tickling cough, and slight fever; in others, with acute laryngitis, or croup. This stage continues from a week to a fortnight, and is succeeded rather abruptly by the second, which is denoted by the characteristic cough, whence the disease takes its name. This peculiar cough consists of successive, involuntary suffocating expulsions of air from the air-passages, succeeded by a long and sonorous inspiration. These paroxysms of convulsive coughing are often so violent, as to occasion epilepsy, or effusion of blood beneath the conjunctival membrane of the eye, or from the nose or ears. The patient, under these circumstances, becomes almost black in the face, and feels a sense of approaching suffocation, until inspiration returns. In severe cases, several fits of convulsive coughing occur in succession, until the child is quite exhausted, and almost senseless. In most cases, when the mucous membrane of the minute ramifications of the bronchi, or the pulmonary air-cells are the seat of the specific inflammation, the stomach is acted upon mechanically by the convulsive contraction of the diaphragm and the abdominal muscles, which compel it involuntarily to discharge its contents, together with those of the bronchial passages. As a proof that this process takes place without previous sickness, or gastric derangement, the patient, immediately after the fit of coughing is over, feels hungry, and calls for food. In all cases, the approach of the paroxysms excites in the patient a marked apprehension of impending distress, and instinctively propels him to secure himself from falling by seizing hold of a table, or some other firm support, or by attaching himself to his nurse's dress. At first, little or no expectoration occurs, but as the second stage advances, either viscid mucus, or pus is expelled, and terminates the paroxysm. The period at which the purulent secretion commences, is three weeks after the first appearance of the disease, at which time a quotidian or regular evening paroxysm of fever, of the nature of evening hectic fever, symptomatic of the purulent secretion, is discovered. When the patient is carelessly exposed to a cold atmosphere, bronchitis, pneumonia, or pleuro-pneumonia, is superadded to the disease, and protracts its duration; and

these complications are associated with cerebral convulsions in plethoric children, who have large heads. When the inflammation attacks the bronchial ramifications, and much mucous secretion follows, they are liable to become dilated, and thus to increase the misery of the patient, both during the disease and after its termination. During pneumonia, also, vesicular or interlobular emphysema may arise, and add to his distress; the former leaving permanent dyspnoea, and the latter endangering infiltration of air through the mediastinum into the cellular membrane of the face, neck, or chest. The violence of the cough may also produce rupture of the capillary vessels of the eyelids and upper lip, greatly disfiguring the patient. In the decline of hooping-cough, the latent disordered state of the alimentary canal, discovers itself in the form of remittent fever in delicate infants, accompanied with emaciation, and sometimes with spasm of the glottis; and this secondary fever aggravates and prolongs the duration of the original disease. During the catarrhal period of hooping-cough in infants and young children, the mucous membrane of the bowels is almost always affected concurrently with slight dysentery, which in the former is erroneously attributed to dentition, and in the latter is overlooked, in consequence of the cough attracting predominant exclusive attention. For a more full explanation of my views, respecting the nature and origin of remittent fever and spasm of the glottis, the reader is referred to the chapters on those diseases. It must, however, be observed, that when the latter disease is connected with epilepsy, there will be reason to suspect the consecutive attack of some cerebral, or, more probably, cerebellous congestion, or inflammation. In scrofulous children, the second stage of hooping-cough is sometimes accompanied with an intense heat and dryness of the skin, alternating with chilliness, which ultimately terminates in hectic fever, and the development of tubercular disease in the lungs.

"It is needless for me to enumerate all the various theories which have been invented to explain the origin and nature of hooping-cough. It appears to me to be nothing more than a bronchial catarrh, of a specific character, which is modified by the treatment and the constitution of the patient; and my observation of, and extensive experience in, the treatment of the disease, induce me to concur with Billard, and other French writers, in considering it to be an epidemic and not a contagious disease. As I before remarked, the hooping-cough begins in some children with inflammation of the larynx. This gradually descends the trachea, until it reaches the bronchi, at the bifurcation of which is seated the most sensitive part of the air-passages. The same process takes place when the disease commences as common catarrh. As soon as the specific inflammation reaches this irritable part, the peculiar

running, suffocating cough is observable, and every subsequent exposure to cold increases, extends, and prolongs the disease. It is the opinion of Dr. Copland, that hooping-cough in the simple form, is altogether nervous, and that in uncomplicated cases, the nervous affection never proceeds beyond irritation.* Dr. Webster also believes, that the symptoms depend upon inflammatory irritation in the brain or of its membranes;† and Leroy,‡ Boisseau, Otto,|| and Begin,§ have also observed the frequent connection of cerebral disease with hooping-cough from the beginning of the attack, but they by no means admit that the latter is dependant on the cerebral affection. If the cough were only nervous, we should expect to see it terminate, as the hysterical and other nervous coughs, without expectoration, and without the peculiar, shrill inspiration. In hooping-cough, however simple, we invariably find the patient expectorate either viscid mucus or pus, and we know that in simple, chronic laryngeal inflammation, the cough is followed by the discharge of a starch-like inspissated mucus. The post-mortem appearances consist of increased vascularity, or actual inflammation of the mucous membrane of the air-passages, extending even to the pulmonary air-cells.

"On examination after death, the usual morbid appearance is inflammation of the mucous membrane. The lungs collapse imperfectly, and when cut into, an abundance of frothy and puriform mucous exudes from the bronchi and air-cells. Increased solidity of the lung has often been found, and by some it is said to be constantly observable. When it does occur, it would appear that the inflammation had extended from the mucous membrane to the substance of the lung, or attacked both its textures."¶ These morbid appearances are accounted for by Dr. Copland in the following manner:—

"The impression made by the causes is followed by the lesion of the respiratory nerves, particularly the nervus vagus; and, owing to this lesion, the mucous surfaces they supply, frequently experience consecutive changes, as respects the circulation, exhalation, and secretion. Hence result vascular determination and augmented secretion, attended by irritation of the glottis, epiglottis, pharynx and air-tubes, inducing convulsive action, which supervenes the more readily, as the disease is not only essentially nervous in its nature, but often becoming consecutively irritative, or inflammatory; this last characteristic being only an occasional complication, occurring from predisposition, habit of body, epidemic influence or fortuitous causes favourable to its development."**

"In opposition to this theory it may be observed, first, that

* "Dict. of Pract. Med." part v., p. 242. † "Med. and Phys. Journal," Dec. 1822.

‡ "Med. Maternelle," Paris, 1803. || "Nye Hygæa," Aug., 1824.

§ "Traité de Thérapeutique," &c., tom. ii., 1825.

¶ Dr. C. Johnson, "Cyclop. of Practical Med.," vol. ii., p. 430.

** Loco citato, p. 243.

when the cough is slight, as in most adults, no concomitant cerebral symptom is present; secondly, that after an attack of spasm of the glottis, which is now acknowledged is produced by the excited action of the pneumogastric nerve, we can neither discover any expectoration during life, nor laryngeal, tracheal, or bronchial inflammation after death; thirdly, that the disease always commences with inflammation in the bronchial or some other portion in the mucous membrane lining the air passages, as other epidemic catarrhs; and, fourthly, that the symptoms of cerebral or cerebellous disease never unfold themselves until the second stage, denoted by the spasmodic cough, has established itself. Hence it appears to me, that the brain and cerebellum are affected in a secondary manner by the temporary obstruction in the pulmonary circulation occurring during the paroxysms of convulsive cough, and the impediment to the return of the venous blood from the brain and consequent cerebral congestion. Adopting this view of the pathology of hooping-cough, it will be found that its treatment may be facilitated, its duration limited, and its severity and danger greatly diminished by the practice which I have long adopted, and am about to recommend.

"Treatment.—As soon as the disease is discovered to be hooping-cough, the patient must be confined day and night to a temperature of sixty-five degrees of Farhenheit's thermometer. This degree of temperature may be artificially raised and maintained in most houses. The temperature must be the same in the bed-room as in the sitting-room, and both rooms should, if possible, be on the same floor. The bed-room should be ventilated during the day, and the sitting-room during the night; but the windows of the apartments must on no account be opened while the patient is in them. The bowels may be regulated by some gentle aperient, as salts and senna. No other medicine will be required during the first stage of the disease, except a mixture composed of citrate of potash and squill. When the second stage arrives, while proper attention is paid to temperature, the cough will be found much slighter, and the expectoration much less than if the child were permitted to be exposed to the external air; and at the end of six or eight weeks at the farthest, all symptoms of the disease will disappear. This regulated temperature may be commenced at any stage of the disease with advantage, while the cough is alarming, and the expectoration copious or purulent; and it will not interfere with any treatment which bronchial or pulmonary inflammation may specially demand. Should the disease have been neglected, and the patient be found suffering with purulent expectoration and hectic fever, before the regulation of the temperature has been adopted, he may be speedily relieved by adhering to it, and by the exhibition of half a grain or a

grain of sulphate of zinc, or a quarter or a half a grain of sulphate of copper, dissolved in an ounce of water, with half a grain of disulphate of quina, three times a-day. These metallic sulphates have, with the assistance of an exalted temperature, the effect of reducing the mucous and purulent secretion in this disease, on the same principle on which they succeed in the cure of chronic nasal catarrh, to which the reader is referred. The quina will assist the stomach in retaining the zinc or copper, and in removing the periodicity or quotidian access of the fever. Acute bronchial and pulmonary inflammation must be treated by suitable venesection and other means adapted to these diseases; but they will never be found to arise, when the regulation of temperature is uninterruptedly employed from the commencement of the disease.* I have before stated, that the mucous membrane of the bowels is frequently affected simultaneously with that of the bronchi or larynx. Hence we must expect remittent fever to manifest itself towards the decline of the bronchial disease. The earliest symptoms of this consecutive fever, will be moaning in the sleep, rapid emaciation, picking of the lips and fingers, and rubbing of the eyes, with which will be associated peevishness, perverseness, and disinclination for amusements. In this state, the least annoyance or opposition excites passion, which is immediately followed by a fit of coughing. The treatment of this modification as well as that of spasm of the glottis, when that is also complicated with hooping-cough, must be conducted in the same manner as I have directed, when speaking of these complaints. Patients who may have had their illness prolonged by either of these diseases should be removed to a healthy situation, where they may enjoy a pure, mild air, as soon as the disordered state of the bowels has been removed. Should any cough remain, which is sometimes kept up by habit and local association, the change of air and scene will at this period soon remove it. The most common convulsions excited by the violent paroxysm of hooping-cough are those which constitute epilepsy. As these almost invariably appear only in robust children, leeches must be applied to the temples, and the bowels freely opened; and if the epilepsy should still persist, the warm bath may be prescribed. If the child is of sufficient age to admit of venesection, he may be bled at the arm; if not, and the case is urgent, the jugular vein should be opened, and three or four ounces of blood abstracted. These are the most dangerous and fatal

* After the removal of the complication of pneumonia or of bronchitis and bronchial congestion, and if the hoop be long and frequent, and still more, if there be tendency to glottic spasm, or to convulsions, assafutida and balladons, the first in the form of mixture, the latter in that of tincture, will be found to be valuable remedies. To each are added advantageously, the carbonate of potassa and ipecacuanha wine. Frictions with stimulating liniments along each side of the spinal ridge are a popular and a useful addition to the general treatment.

convulsions, to which children are liable, and therefore relief must be promptly afforded. Hydrocephalus rarely succeeds an attack of hooping-cough. When it does occur, it must be treated by the usual remedies for that disease. In scrofulous children the bronchial inflammation sometimes terminates in the development of tubercles, which hurry the patient into pulmonary consumption. On this account, the progress of hooping-cough should be carefully watched, in order that acute inflammation in the mucous membrane, and in the pulmonary parenchyma, may be discovered and immediately relieved. Should latent phthisis be detected in the decline of the disease, the patient should be removed to a warm climate, which, in many cases, will have the effect of suspending or retarding the progress of tuberculisation."

The treatment recommended in the above extract, has been tried with favorable results, by a considerable number of persons, and if the reports given of its efficiency, should be sustained, it will certainly form a most useful discovery. The same may be said, too, of the strychnine used in incontinence of urine.

"Incontinence of Urine, or Involuntary Discharge of Urine."—An involuntary flow of urine during sleep, is one of the most disagreeable and unfortunate infirmities to which children are liable. It is occasioned by a partial paralysis of the sphincter muscle of the bladder, which derives its nervous influence from the medulla spinalis. The attack usually occurs during the first sleep, when volition is dormant, and the excitomotor system uncontrolled by any counteracting influence. In most patients, a derangement in the functions of the stomach and bowels, which produces general muscular atony and diminished vital energy, from the imperfection of the primary process of sanguification, may be detected by loss of appetite and animal spirits, paleness of the countenance, indisposition for exercise or amusement, furred tongue, and an offensive and unnatural state of the intestinal discharges. To these symptoms may be added itching of the nostrils, lips, and eyelids, and irritability of temper.

"Incontinence of urine also occurs in some children who are subject to epileptic attacks during the night. In these cases it is probable that paralysis of the bladder is occasioned by temporary congestion in the cerebellum or medulla oblongata, promoted by sleep and the recumbent position.

"Treatment."—This is general and special. The general treatment consists in the restoration of the chylopoietic derangement, by proper purgatives, as chloride of mercury and jalap administered every third morning; or a few grains of

the former medicine every third night, and a dose of salts and senna the following morning. The epileptic or plethoric should be limited to proper diet, and all descriptions of patients should be restricted from food, and especially from liquids, during several hours before bed-time.

"The best special treatment will be found in the administration of strychnine or nux vomica, which medicines exercise a specific power over the spinal nerves, which they excite into action in a most extraordinary manner. The dose of strychnine for a child, from five to ten years of age, is one-twelfth of a grain, and that of finely powdered nux vomica two grains, three times a-day. The curative effect of either of these medicines is so infallible that I never have occasion to prescribe any other specific remedy."

We shall here close our notices of this work which has consisted principally in extracting such passages as might serve at once to instruct our readers and show the merits of the book. It is the most full and perfect treatise with which we are acquainted on the surgical diseases of infants, and not deficient in what relates to the medical department of infantile pathology.

PART III.—BIBLIOGRAPHICAL NOTICES.

ARTICLE VII.

Lectures on Natural and Difficult Parturition. By EDWARD WILLIAM MURPHY, A. M., M. D., Prof. of Midwifery, University College, London: Obstetric physician, University College Hospital; and formerly assistant physician to the Dublin Lying-in Hospital. pp. 281. New York: S. S. & W. Wood. 1846. (From the Publishers.)

From a hasty glance over the pages of this work, we have arrived at the conclusion, that, although there are a great many works of this class extant, there is yet ample room for it. The arrangement of the subjects of the lectures, is excellent; maintaining the proper connexions, which are indispensable to a clear exposition.

We shall take occasion to refer to it hereafter; but in the meantime would recommend its perusal to students and physicians generally.

(For sale by Brautigam & Keen, Chicago.)

ARTICLE VIII.

New Periodical. We have received the first number of "The Annalist," a record of practical medicine in the city of New York. Edited by WM. C. ROBERTS, M. D. Containing 24 pages octavo; to be issued semi-monthly.

Judging from the contributors to this number, we should infer it to be under the especial patronage of the College of Physicians & Surgeons, and of course we shall expect it to be well conducted. The number before us bears evidence of much ability. We hope it will receive a liberal support, and welcome it to our list of exchanges.

ARTICLE IX.

Adulterations of various substances used in Medicine and the Arts, with the means of detecting them; intended as a manual for the Physician, the Apothecary, and the Artisan. By LEWIS C. BECK, M. D., Professor of Chemistry in Rutger's College, New Jersey, and in the Albany Medical College, Honorary Member of the Medical Society of the State of New York, etc. New York: Samuel S. and William Wood.

1846. 12 mo. pp. 333. From the publishers. (For sale by Brautigam & Keen, Chicago.)

The subject upon which this treats is one of much interest to the apothecary and physician, and is generally too much neglected. The adulteration of medicines is carried on to such an extent, that all those who deal in them, should possess that knowledge necessary to distinguish between impure and genuine agents. This work is well calculated to impart such instruction; and the distinguished author, who is every way qualified to do justice to the subject, should be a sufficient recommendation. It should be in the library of every apothecary and physician.

J. McL.

ARTICLE X.

Researches, Historical, Topographical and Critical, on Yellow Fever. By BENNETT DOWLER, M.D., of New Orleans.

Dr. Dowler is one of the most racy writers in this country,—is a close observer, diligent and thorough in his investigations, and constantly on the look out for something new. We always expect a treat when we find his name as author at the head of an article. The quaintness of his style often serves to spice up what might otherwise be considered the dry detail of facts.

The aim of the present article appears to be, to prove, that while modern, the yellow fever is neither contagious or miasmatic, exclusively Asiatic or European in its origin. The author makes numerous references to prove that had yellow fever prevailed previous to the discovery of America, some of the numerous authors would have mentioned it, and quotes Mr. Webster on pestilence, to prove that the disease prevailed amongst the aborigines of our country, prior to the European settlements.

He deals out blows against malaria and contagion with a masterly hand as follows:

"Barbadoes was settled by the English in 1605, and was soon put in a high state of cultivation. In less than a century, it contained about 150,000 inhabitants, more than 500 to the square mile—a density exceeding that of nearly all other countries. In 1786, the population had declined to less than 80,000—a result, perhaps, more attributable to the exhaustion of the soil, than to the ravages of yellow fever: for this island like most places to which yellow fever shows a geographical predilection, is, paradoxical as it may seem, extremely healthful, being little, if at all subject to other forms of epidemic fever. Lind, repeatedly calls it the most 'pleasant and

healthful' of the West Indian Islands. Towards the close of the eighteenth century, an English traveller, Sir W. Young, thus describes it: 'The Island is dotted with houses as thickly as on the declivities in the neighborhood of London or Bristol, but with no woods; two or three straggling cocoas near each dwelling, were all the trees to be seen.'

"For two centuries, this island has been the hot-bed of yellow fever, which Dr. Ferguson, Inspector General of hospitals in the West Indies, declares to be of the very worst form.* If the logic of contagionists is inconclusive, that of miasmatists is evidently erroneous. No one can deny that temperature, humidity, and the like, greatly influence human health. It does not hence follow that the swamps of Louisiana emit any mystical miasma, (any more than so much rose water,) which is the cause of the yellow fever: indeed the most swampy portions of the state are freest from this disease. When swamps cannot be found, as at Barbadoes, Vera Cruz, Havanna, not to name scores of towns in Spain, including that dry mountain of rock, Gibraltar, still the advocates of this doctrine would have us to believe, in opposition to the evidence of our senses, that as the disease is present so is its assumed cause, marsh exhalation. This extensive subject can only be glanced at in this place. Bancroft † attempts to account for the great epidemic of 1647, not by the agency of swamps, but by stating, that, as, Barbadoes had been then settled but little more than twenty years, and, 'that so little of it was at that time cleared and cultivated, that *dry* weather assisted by great heat, was best suited to the production of noxious miasma; contrary to what has been the case at Barbadoes since it attained its highest state of cultivation many years ago.'—He totally forgets, that as the cultivation increased, so did the yellow fever for two centuries. most said

"It is worthy of observation, that intermittents are not found in this island. Dr. Gilpin, principal medical officer at Gibraltar, never knew of but one intermittent in that great fortress of yellow fever; yet, miasmatists persist in referring these two maladies to the same cause. This, however, is a subject which will be investigated elsewhere, and is merely alluded to here, in connection with the topography of the island under consideration.

"Sufficient number of authorities exist, to prove that a great yellow fever epidemic prevailed in this island, in the year 1647, already mentioned. These authors having been contemporaneous with each other, with the events which they have recorded, agreeing in their relation of the same, and having been without any interested motive to deceive themselves or others, their testimony, as far as it goes, is entitled to the utmost credit. Their history of symptoms is necessâ-

* Med. Chir. Trans. † On Yel. Fev.

rily imperfect, representing in this respect, the science of medicine at that dark period. Dr. R. Vines, a planter and physician, describes this epidemic at Barbadoes, as 'a plague very infectious, first attacking the ablest men of the greatest bodily ability.' Ligon, whose history of Barbadoes appeared ten years after the epidemic, arrived in that island early in September. He says, that before the close of that month the living were hardly able to bury the dead.* He gives a very remarkable trait of yellow fever, which two centuries have confirmed, and one which is, in the histories of maladies, very peculiar; that '*for one woman that died, there were ten men.*' The mortality was five or six thousand in this small and infant colony!

"Father Du Tertre, who lived in the West Indies, in 1635, wrote an account of an epidemic, which prevailed in St. Christopher, before that already mentioned in Barbadoes, and which he called '*la peste*', and described as being accompanied with headache, constant vomiting, and death in three days. It destroyed, in three months, one-third of the entire population of that island.

"The assumption, that yellow fever is the product of marsh poison, is not only unsupported by its topographical affinities but is irreconcileable to its modern appearance

"Sterne has somewhere asserted, that our earth is the vilest and dirtiest, and, therefore, the most miasmatic, it may be supposed of all the planets, being made wholly out of the refuse clippings of the rest. The geological account of its primary condition, is not very flattering in a sanitary point of view; since upon the theory of marsh exhalation, yellow fever must have been as old as creation; and withal, infinitely more common and fatal in ancient than in modern times. The land as it arose from the water, boggy, fenny and marshy, shot forth gigantic ferns, and rank herbage of many kinds, which, judging from their fossil remains, now constituting the immense coal fields of our globe, were more like our present trees, in luxuriance, than the aquatic plants of our era. Mountains upheaved by volcanic action, by enclosing vast basins, into which alluvial matter was constantly descending, for countless ages, formed vast swampy areas, from which a concentrated malaria, equaling that which probably followed the Noahic flood, must have caused yellow fever epidemics, sufficient to have destroyed, at least, the males of the Caucasian race, or a great proportion of them, though many white females, and nearly all the negroes, might have escaped then, as now.

"To say nothing of the valley of the Mississippi, its delta alone, from Cape Girardeau to its mouth forms, according to Mr. Forshey, 21,200 square miles, having a mean width of

* Bancroft and Webster.

418 miles, and a length of 600 ; the depth of the alluvion having a mean of 50 feet, required 13,684 years for its formation, by deposits from the river.* During this long period it must have been excessively swampy. The condition in which De Soto found it, in 1539, was of course worse than at present;† yet, the yellow fever did not appear in New Orleans until a period very recent, when compared with the Northern States and the West Indies, which had been previously desolated by many epidemics, for nearly a century and a half before it visited swampy Louisiana. The valley of the Mississippi, not the little fens of Old England, nor the mill-ponds of New England, nor the Pontine marshes, or rather the Pontine pasture lands of the Eternal city, offers the best and most extensive field for testing every possible malarial question which the most imaginative miasmatist has ever been able to conceive or propound since 1717, when Lancisi published his *De Noxiis Paludum Effluviis*. In the entire valley, an area of nearly the third of a million of square miles, since its discovery, the aggregate mortality from yellow fever to the present time, has not equalled the half of that during a single year in Old Spain, where it has amounted by the official reports to one hundred and twenty thousand, in places free from swamps, and even among mountains.

"Omitting the palpable anachronism of the alleged Asian importation, there seems to be as little plausibility as probability, in seeking the cause of a malady, in a country where the malady itself, is unknown. It may be patriotic, however, to defend our country from imputed contagion, right or wrong, and to throw the blame of yellow fever upon our antipodes, though without better evidence than has yet been adduced, this process is far from being altogether scientific. Charge the Siamese with originating the contagion—they will charge the Japanese or some other people. Thus contagion, like the Wandering Jew, will be driven "from Indus to the Pole," and from the pole to the burning zone. March! March! will be the universal cry. It is affirmed, poetically no doubt, that the great pendulum of the clock of Eternity in its vibrations utters but two words, EVER! NEVER! So it is with this endless question of contagion—Ever assuming, Never proving its conclusions. Doomed to march! march! it crosses the Atlantic, doubles the Cape of Good Hope, traverses the Indian Ocean, passes through the Straits of Malacca—a distance of twenty thousand miles, to get a product, which a crowd of facts

* Newspapers, 1846.

† So little has the Louisiana coast, along the Gulf, changed, since 1685, when La Salle committed the fatal mistake of landing—not at the mouth of the Mississippi, as he intended—but west of it, that Mr. Darby has been able to identify the exact place of his debarkation, between the Vermilion and the Mermentau rivers, from the minute description, at that period, of this shore, with its extremely uniform, low, shining banks of sand; all of which, he declares, he took some pains to ascertain.—*Descrip. La., 1817.*

show to be indigenous to certain places of the western hemisphere, or to certain local climates, acting during the hot season, and for only a few years, on unassimilated constitutions not long resident in cities or villages.

"The cause, which in one locality, produces goitre; in another, elephantiasis; in a third, Plica Polonica; in a fourth, the yaws; in a fifth, leprosy; in the sixth, yellow fever—is quite unknown, though many pretended explanations have been given. As some places produce wheat, or bananas; live oaks or cypresses; hanging moss or palmettos; mosquitoes or alligators—so may yellow fever be produced, without our being able to show the cause of the one or the other class of effects.

"That the essential cause of yellow fever will ever be discovered, or being discovered, will be controlled or prevented by human art is altogether improbable. Its mysterious cycles culminate, decline, and re-appear. Charleston, desolated at the close of the seventeenth century, was exempt in the first quarter, but a sufferer in the second quarter of the eighteenth—nearly half a century of exemption followed again—a period much longer than that which now cheers the cities of New York, Philadelphia, Boston, and Baltimore, with the hope that the yellow fever has taken its leave of them forever.) But the last decennial period of the past century, and the first of the present, relumed the flames of the epidemic in Charleston where they had smouldered so long, and in which they continue to break out almost annually. Charleston suffered nearly a century in advance of New Orleans, and is still as great a sufferer as the latter.

"It is to be lamented that the topographical ameliorations which have been pushed forward with a celerity characteristic of New Orleans, have not diminished or modified the yellow fever of the place, though strange to say, this opinion is so unwelcome to all, and so humiliating to theorists, that it is constantly repudiated, while 'the long funerals which blackened' all the streets, no less than five different seasons, from 1837 to 1843, inclusive, are still but too fresh in the recollections of a hundred thousand people. As gloomy prognostications are as useless as unwarrantable, let us hope that New Orleans has entered upon a non-epidemic cycle, not only for half a century, as once happened to Charleston, but forever. The yellow fever prophets and prophetesses, have not, hitherto, been able to read the Sibylline leaves of its etiology, so that epidemics can be certainly known until after their occurrence.

"The rejection of one error never justifies the adoption of another, unless it be on the principle of Dean Swift, that all happiness consists in being *well* deceived, or on that of Fontanelle, which makes philosophy itself consist in much curiosity and very bad eyes. To explain the cause of yellow fever

seems to be regarded, not as supererogation, but as a paramount duty enjoined in the medical decalogue. It is scarcely reckoned a sin against logic, to resort to almost any etiological *non-sequitur*, for this purpose. The cause is assumed; when the effect appears without the cause, either nothing is said of the absence, or some other cause, condition, or circumstance is affirmed as a sufficient substitute for the truant; when the assumed cause exists in the greatest concentration, without the presence of any effect whatever, some assumed contingency is supposed to counteract its power: as a *ruse de guerre*, a mere incident, will, however, always answer, and can always be found:—dry or wet; hilly or marshy; rocks or mud; vegetable or animal matter; stagnant air or storms; heat or cold; infected ships, or a ‘pair of trowsers;’ immigrants or insects; gases or graveyards; absolute or conditional contagion or malaria, both foreign or domestic. This sort of ratiocination was not altogether unknown to Joe Miller:—‘The Frenchman who observed that an Englishman recovered from a fever after eating a red herring, administered one to the first of his fellow countrymen whom he found laboring under that disease, and having found that it killed him, noted in his tablet that a red herring cured an Englishman of a fever, but kills a Frenchman.’ ‘Rotten coffee’ is found in Philadelphia; three barrels of spoiled mackerel, sour-croût, sour porter, and rotten corn, two thousand pounds of bad bacon, with the heads and entrails of some calfish, are found in a certain town in the State of Mississippi; and a ‘trash wharf’ in the city of Augusta, Georgia, etc.—these are gravely substituted for contagion, for ‘a dirty pair of trowsers,’ (from Martinico,) in which, according to the most ‘potent’ authorities of a New England city, a most deadly epidemic was imported. Have not ‘dead fish,’ ‘trash,’ ‘dirty trowsers,’ and the like, abounded since the foundation of the world, in all climates and places? Does not the law of continuity in the cause, [‘trash,’] require a corresponding continuity in the effect, [‘yellow fever?’] Were yellow fever producible by a few pounds of ‘rotten coffee,’ would not the incendiary, when sated with conflagrations, amuse himself, by way of variety, by kindling up an occasional epidemic, especially if he were himself acclimated, and wished to profit by the commercial speculations always incidental to such an event, whether his stock in trade consists of cotton, sugar, red herrings, drugs or coffins.

“In denying, or rather doubting, that yellow fever is produced by any emanation from the sick, or from marshes, nothing more is intended than such emanation is unsupported by any evidence worthy of belief. Were a subterranean, a solar, a lunar, or a stellar theory substituted, it might be true or not; the *onus probandi* belongs to the proposer of such doctrines.

"An alledged cause ought to be invariably followed by its effects: for example, if the doctrine of imported contagion be adopted, then the town of the Belize, at the mouth of the Mississippi, is the most exposed point on the globe, as the vessels supposed to be infected, are often detained there for want of pilotage, and towage, and from getting fast on the bar; adopt miasma as the cause, and yellow fever ought to be eternal, as this is, of all towns, the most exposed to marsh exhalation, and yet yellow fever is unknown to the residents.

"The *morale* of contagion and miasma is very dissimilar: the one is anti-social, repulsive, dooming its victims to cheerless insulation—to withering neglect. It cries—stand off!—perish in ships!—perish in lazarettos!—perish in hovels!—'let the dead bury the dead!' The other, like the good Samaritan, fearing nothing from contagion, offers not only personal attendance but sympathy in the hour of need. Besides the utilitarianism of this latter droctrine stands forth, actualized in the improving, draining, cleansing and embellishing of both town and country localities. Yet in the sciences, the utility of an error cannot plead its justification. Sciolism may declaim against the pulling down of existing systems. It seems to abhor a vacuum. But the massive columns of truth will never arise until the foundation shall be clear." E.

ARTICLE XI.

Elements of Materia Medica and Therapeutics. By EDWARD BALLARD, M. D., London, Physician to the St. Pancras Royal General Dispensary, and Medical Tutor in University College, London, and ALFRED BARING GARROD, M. D., London, Physician to the Fore Street Dispensary, and Lecturer on Materia Medica and Therapeutics in the Aldersgate School of Medicine. With additions and alterations by R. EGLESFIELD GRIFFITH, M. D. Philadelphia: Hogan & Thompson. 1846. From the publishers. (For sale by Brautigam & Keen, Chicago.)

This work is designed to be strictly elementary, and so far as the history of drugs is concerned, a compilation. In our large works on *Materia Medica* there is much matter not absolutely necessary for the practitioners to know, and is scarcely ever read attentively by the medical student. In reference to this work, the authors say, "without depreciating them, the larger works in our language as books of reference, the present is intended to be one, every word of which the student ought to read, and with whose entire contents he should render himself familiar."

The first division of the work treats of the general principles of therapeutics, and of chemistry and natural history as

applied to *materia medica*, occupying 67 pages. The second is devoted to the consideration of the individual articles of the *materia medica*. A chemical classification is adopted for the inorganized, and a natural historical one for the organized substances.

That portion of the work including the general principles of therapeutics, chemistry, and natural history as applied to *materia medica*, and the inorganic medicinal agents, was prepared by Dr. Ballard; and the remainder, including the organic medicines, by Dr. Garrad.

The American editor has added the formulae of the U. S. pharmacopœia, and also some medicinal plants indigenous to this country, and extended or modified the description of others. In an appendix are added some of the more recent pharmaceutical preparations, and the therapeutical agents, electricity, bathing, mineral waters, blood letting, &c.

The work is well calculated for what it purports to be, viz: an elementary work on *materia medica*. In addition to what is original, those main and leading facts which are of the utmost importance to the physician, have been gathered from standard works, from among other matters of less importance.

The matter and arrangements are good. The latest improvements in medicines are noticed, and much has been condensed within a small compass, which renders it a valuable text book for medical students.

J. McL.

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PART IV.—EDITORIALS.

ARTICLE XII.

RUSH MEDICAL COLLEGE.

The lectures in this institution commenced, as usual, on the first Monday of November, to a much larger class than has been in attendance at any former session.

As Chicago is taking rank amongst the large cities of the west, her medical school seems to be rapidly growing in the favor and confidence of the medical public. And we see no good reason why it shall not continue to increase in the facilities for instruction, with the rapid growth of the city, and at once take a stand amongst the first institutions of the kind. It is a well established fact, that no school of medicine can give great facilities for the study of anatomy, or for clinical instruction, unless located in a populous city. And without these, it is scarcely worth while for the student to spend his time and money, in attending upon its teachings; as the former is the foundation, and the latter the capstone of a medical education, which, without them, is like an edifice without anything to stand upon, or to cover it,—an early and a positive ruin.

In these respects, Chicago, which contains about fifteen thousand inhabitants, offers facilities equal to any city of its size in the country, which will increase, to correspond with any probable increase in the classes of the college.

The city dispensary (the foundation of a hospital to be established) now affords an extensive field for clinical observation, and the instructions in it are amongst the most valuable of the course.

The college library, to be used for reference, by an arrangement of the faculty, will regularly increase year after year, and now furnishes most of the works to which a teacher or student could desire to refer; in addition to which, are regularly received all of the medical periodicals published in the United States.

The museum is rapidly filling up, and in a few years will be one of the best in the western country.

The friends of the institution are earnestly requested to

preserve, and send in, all valuable specimens in morbid anatomy, botany, &c., they may find, which shall be labeled with their names and carefully preserved.

The members of the faculty, are required to remain in attendance, during the whole term of the session, and the course will be as full and complete as in any school in the country.

This arrangement is the more gratifying since a number of small schools, in the country, are in the habit of giving in a few weeks, sometimes not over three or four, their full course on several of the branches.

If we understand rightly what is necessary to constitute a full course of instruction, as customary in all medical schools of good standing, (though entirely too brief even then,) it is to have a lecture of one hour each day of the session upon chemistry, practice, anatomy, and surgery; unless the two latter are associated and taught by the same professor, as they formerly were in most schools, when but nine lectures per week were given upon the two branches; four lectures per week upon each of the branches of *materia medica*, and obstetrics, &c., with the regular anatomical demonstrations. And we hold that no school giving less instruction than this, should be recognized by other colleges as giving a full course of lectures.

With the advantages of a location in a city, that must soon become the principal mart, for a large portion of three or four adjoining states and territories, a full and thorough course of instruction in its several departments, a well selected library, a museum containing a large number of specimens in morbid anatomy, special and surgical anatomy, mineralogy, geology, botany, and a complete cabinet in *materia medica*, a good set of chemical apparatus, and the preparations, machines, and instruments, necessary for fully demonstrating the courses on surgery and obstetrics; a full supply of the material for demonstrating anatomy, its extensive clinical instructions in the hospital, and the great liberality of the city towards it, the Rush Medical College must soon be one of the very best institutions of the kind in the country.

Believing amidst odds like these, still that in endeavoring to make a successful experiment, a circumstance like this might not occur, I hope you will be willing to consider this your guide in your judgment of our plan.

ARTICLE XIII.**HOSPITALS FOR THE INSANE.**

It is gratifying to us to communicate, as it must be to every member of the profession, that rejoices in the alleviation of human suffering, to learn that Indiana has now in progress of erection a large and elegant Hospital for the Insane.

It is calculated to accommodate one hundred and forty or fifty patients, with the officers, attendants and servants necessary for its management.

The plan of its internal arrangements, made out from an examination of similar institutions, by our colleague, Dr. Evans, who is superintendent of the institution, is said to be one of the best yet devised; combining more conveniences, with less expense, than is generally to be found in such establishments. Although three hundred feet long, with contemplated additions of one hundred feet more to each end, being three and four stories high, there is scarcely a foot of room in the whole establishment that will not be usefully and appropriately occupied. The provisions for the comfort and appropriate treatment of the patients, are ample and most admirably arranged.

The system of ventilation is such, that the fire that heats, through steam pipes in a hot air chamber, all the wards in the institution, at the same time exhausts, by its draft, the rooms of their foul air and burns it.

The walls of the basement story are now put up, and in the course of the next year the building will be enclosed. So within a very short period Indiana may boast of an institution which, if well managed, will be one of the proudest monuments possible for her to erect; a monument of her benevolence; showing that her people have hearts to feel for the unfortunate, as well as heads to perceive what is her true interest.

But where stands Illinois in this matter? With a population of two hundred and ninety-two insane and idiotic persons in 1840, which may safely be set down at one hundred and seventy-five insane persons at this time, what are the means provided for their care and treatment? A simple statute, by which they may if paupers enjoy the benefits of the poor laws.

However, we fain would hope that Illinois is waking up to

the subject. Some time in the year 1844, Dr. Stahl, of Quincy, wrote and published a long article, calling the attention of the people to the subject. During the following winter, Dr. Mead delivered an address upon the subject to the people of Jacksonville, and we understand, will send up a petition, signed by numerous citizens of the state, praying for such an establishment, to the present session of the legislature.

And we understand that a great degree of interest in reference to the subject, has been excited in different parts of the state, during the past summer, by a visit from that celebrated philanthropist, Miss D. L. Dix, than whom, no individual has done more for the relief of the insane of America.

It was her purpose to have travelled over the whole state, visiting most of the counties, collecting facts in reference to the condition of the insane, by which course she would have been able, in a memorial to the legislature, to have set forth such an array of facts in reference to their condition, (as she has done in many of the States and in Canada,) as that to oppose provisions for the establishment of a hospital for their treatment, would have rendered a member of a legislature in a christian community, liable to the charge of gross inhumanity. But the hand of affliction arrested her labours. She has for two months been exceedingly ill, and if she is at all able to visit Springfield before the adjournment of the legislature, it will not be until toward the close of the session. We, however, confidently hope she may yet be there, as her familiarity with the subject, and her powers of persuasion, we doubt not would place the subject in such a light, before our senators and representatives, as to cause them to take some efficient action upon it.

At all events we sincerely hope they may see the matter in its true light.

A Hospital for the Insane would not only be a blessing of uncomputed magnitude to the unfortunate sufferers, who are our brethren, our sisters, and our friends, but it would be a great saving to the State, in taking better care of the insane poor, at a greatly reduced expense, who must at all events be supported by the people.

ARTICLE XIV.**LETTER FROM DR. HERRICK.**

We have received a letter from our colleague, who was appointed to the Medical Staff of the army that has marched against Mexico, dated "Banks of the Elhonda, 56 miles from San Antonio, Texas, Oct. 5th, 1846," he being surgeon to the 1st regiment of Illinois volunteers, under command of General Hardin, which with the 2d regiment had joined the army under the command of General Wool, and were on their march to Mexico.

There has been considerable sickness in this detachment of our army. He says: "They have been afflicted with measles, mumps, and numerous other diseases, besides those peculiar to the climate; yet after all the mortality has not been great, not more than seven men having died out of the 1st regiment.

The letter closes by saying that we may, in a few days, expect an article from him for the Journal.

ARTICLE XV.**SECRET REMEDIES.**

Of all the impositions upon a credulous community, the traffic in nostrums is perhaps the most successful, and carried to the greatest extent. You cannot open a newspaper, or turn a corner, but you are met with an announcement of some *wonderful* elixir of health, whose *undoubted* virtues are blazoned forth by high, sounding recommendations, and hosts of certificates.

It was formerly the case that they pretended to cure all disease, but fashions change in this as in other matters, and we find them now strongly condemning the quackery of this course, (on the principle of the thief crying stop thief,) and confining their application to a few diseases.

In these nostrums the secrecy is the charm which causes community to repose confidence in, and patronize them. Remove this charm, and the speculation in them is at an end. An instance directly in point is fresh in the recollections of the

people of the whole West. A few years ago, Sappington's Pills were in almost every store in the country, meeting with the most active demand. Sappington published the recipe, and although a much better and more active preparation than ninety-nine out of a hundred of their class, where are they? almost entirely forgotten.

The legislature of the State of Maine seems to understand this matter, and to conclude that the people will be quite as likely to appreciate the virtues of a remedy, and be much better judges of its value if they know its composition.

They have passed a law providing under heavy penalties, that "no medicine shall be exposed to sale without a label setting concisely the names of all the ingredients or simples of which such medicine is composed, and the proportion of each." We hope, as the good people of the west have been sufficiently gulled by the venders of these, many of them vile compounds, they will put a stop to them by requiring their composition to be given.

But, there is another point in this case to which we wish to refer. It is in the unprofessional conduct of some physicians, in endeavoring to gain reputation with the people by professing to have secret remedies. For the sake of the credit of our profession, we had hoped that no member of it, who claims a higher standing than the empiric, would have condescended to pursue such a course. Of course they place themselves in the same category with the venders of secret remedies, with this difference, that while they acquire a neighborhood notoriety the nostrum vendor's name goes abroad through all the land.

We call upon all honorable members of the profession—all who desire to see it maintain a reputation for skill and usefulness—who desire to see a clear line of distinction drawn between the quack and the physician—the ignorant pretender and the man of science, to set their faces against all such disreputable practices and gross deceptions. E.

ARTICLE XVI.**NEW MEDICAL SCHOOL.**

A circular has been issued announcing the organization of the "Medical Department of the University of Buffalo," at Buffalo, N. Y., and that the first annual course of lectures in the institution will commence on the 24th of February next, and continue sixteen weeks.

The Faculty is principally taken from the Geneva school.

We, however, understand that the Geneva school is to be continued under its present organization.

This may be a good arrangement, as students may attend in the school at Geneva during the winter, and at Buffalo in the spring, thus taking two courses of lectures immediately in succession.

The Faculty is organized as follows:—

C. B. COVENTRY, M. D., *Professor of Physiology and Medical Jurisprudence.*

JAMES WEBSTER, M. D., *Professor of General and Special Anatomy.*

CHARLES A. LEE, M. D., *Professor of Pathology and Materia Medica.*

JAMES P. WHITE, M. D., *Professor of Obstetrics, and Diseases of Women and Children.*

F. H. HAMILTON, M. D., *Professor of Principles and Practice of Surgery and Clinical Surgery.*

AUSTIN FLINT, M. D., *Professor of the Principles and Practice of Medicine and Clinical Medicine.*

GEORGE HADLEY, M. D., *Professor of Chemistry and Pharmacy.*

CORYDON LA FORD, M. D., *Demonstrator of Anatomy.*
"Fees for all the lectures, is \$62, which will, in all cases, be required on taking the ticket."

ARTICLE XVII.**MEDICAL SCHOOL IN MICHIGAN.**

We learn that efforts are now being made for the establishment of a medical school, near the central point of the State of Michigan. The persons concerned in it are gentlemen of

highly respectable characters, and all that is required for perfect success of the enterprise, is prompt and vigorous action.

ARTICLE XVIII.**WILLOUGHBY MEDICAL INSTITUTION.**

The Faculty of Willoughby Medical School are now giving, as we are informed upon good authority, their last course of lectures.

To a large number of the physicians in this region, it may appear surprising that a school, which numbered upwards of 160 students in the class of last season,—which has so respectable and active a faculty,—which has its graduates scattered through the west, should suspend operations. To those, however, acquainted with the situation of the town of Willoughby, and the great disadvantages it labored under, it has long been obvious that a school at that place could only be supported by the excessive and constant efforts of its faculty and friends. The reason is obvious: it is the proximity of the place to Cleveland, where the advantages afforded to students, are, or will be, every way superior. Cleveland is the natural centre of business for Northern Ohio, and individual efforts will not long contend against natural and constantly operating causes in any department of human affairs. Another cause has, we doubt not, contributed to discourage the faculty at that place; it is the almost unlimited adoption of the credit system, whereby, with the gratification of lecturing to a large class, professors are forced to submit to the inconveniences of empty pockets.

Whatever may be the causes, we congratulate the profession in this region on the result which is the suspension of the school at Willoughby, and its transfer, with some modifications of faculty, of which we are not fully informed, to Columbus, Ohio. In this new region, and the adjoining part of Indiana, there are a large number of students and practitioners, not graduates, who will be benefited by the transfer, and we hope now to see the faculty of the Cleveland Medical College restore the price of their tickets to the ordinary standard of the northern states, a course dictated by their own interests, as well as those of the profession at large.

PART V.—ABSTRACTS.

ARTICLE XVII.

THE MANNER OF USING QUININE.

Any recent experience in what may be called the new method of using this important remedy is possessed of great interest. Dr. R. S. Holmes of the U. S. A., has a paper in the American Journal of Medical Sciences for October, 1846, on "Quinine and Malaria," in Florida, from which we gather the following practical items.

In intermittents he never gave it when the bowels were in a torpid or gorged condition, its effects then seeming to be lost. Has given it when the bowels were actively purged or irritated, combining it with laudanum. In an ordinary intermittent, after having freely opened the bowels, fifteen grains were generally given at one dose, on the evening of the day on which the purge was taken. If the fever was a quotidian, the paroxysm recurred on the next day, remaining as long, but of a lighter grade; on the third day the patient was free from disease. If the disease was of the tertian form there would not be a paroxysm after the administration of the quinine, from which Dr. H. deduces that it requires about eighteen hours for the full effects of quinine to manifest themselves, and which his subsequent practice fully verified.

He did not find this agent to become less active by repetition, having given the same number of grains time after time for a successive attack, and always with the desired result.

The quinine never was given during the fever or chill, on account of the difficulty of retaining it, not that he believed that if it was retained, it would have been injurious or have operated less effectually.

In congestive fever, two indications are to be met immediately,—to rally the patient for the time being by friction, mustard poultices, and stimulants, and to prevent the periodical return. In the first few minutes after seeing the patient, has given him from thirty to sixty grains of quinine at one dose, n water or brandy; the brandy for the former, and the quinine for the latter indication. If the attack was severe, and the quinine not retained, it was given by enema.

In the writer's own words,—“I have given the quinine in the highest stage of the fever, and in the lowest of prostration; never permitting any existing state of inflamed bowels or stomach to deter from its administration, or lessen the dose in which I would otherwise have given it; I have not lost a patient from inflammation following congestion, and where the quinine has been given as here mentioned. I have not seen a patient die, who survived twenty-four hours from the time of attack. The fatal cases are those in which the quinine has not been given in a proper quantity, or where it has not been thrown into the constitution for a sufficient length of time to reach the disease.”

After referring to the opinion, that quinine, in large doses, produces excitement in the brain, and irritation of the bowels; and therefore that even in urgent cases of congestive fever, where these organs are implicated it is sometimes withheld, for fear of aggravating these morbid conditions! quotes a case to illustrate the benefit of quinine, where such complications exist.

It was a dangerous remittent, with inflammation and congestion of the stomach and intestines of a high grade, so great that the attending physician directed his efforts to the subduing of the abdominal disease, and being at the same time impressed with the idea of the irritating power of quinine, the fever was suffered to proceed unchecked. On the seventh day, it was believed that the patient would not live forty-eight hours, if the fever remained at the height which it then reached, whilst it was supposed that the intestinal inflammation, would not prove fatal in less than three or four days.

Therefore, with much hesitation, forty grs. of quinine were given in two doses in twenty-four hours. The next exacerbation was trifling, and afterwards did not occur. The severe and obstinate inflammation was recovered from in six weeks.

The following points of practice are thus set forth:—

“Every periodical disease is to be checked immediately. Quinine, as a remedy for periodicity, is to be given regardless of any existing state of inflammation. Never give quinine in divided doses, when directed for the immediate cure of a periodical disease. To be certain of the operation of quinine in a constitution with which you are not acquainted, it must be given eighteen hours before the desired result. In emergent cases, it may be given in the lowest state of prostration, or the highest grade of the fever. As a general rule, fifteen

to twenty grains will be necessary for an intermittent, and thirty to fifty, for a congestive fever. Never give quinine for the cure of a periodical disease in anticipation, when the periodicity exceeds five days."

In larger doses than tonic ones, its tonic action is quickly followed by stimulation, and this again by sedation: but to produce this last in any great degree, it must be given in large doses. Consequently if it is given immediately before a chill, and arrests it, it does so by its stimulating power; but this stimulation is not so certain, or effectual, as its sedative effect, in which consists the great anti-periodic power of quinine.

Dr. Wm. M. Boling, of Montgomery, Ala., considers quinine as a prompt, decided, unequivocal sedative of the heart and arteries, applicable in all cases of remittent fever, accompanied by an increase in the *force* and frequency of the circulation, and "the very best remedy for bringing about that absence of great febrile excitement, which was considered requisite for its successful administration as an anti-periodic." In inflammatory cases, when the pulse indicates it, blood-letting is recommended in conjunction with the quinine, but not as a preparative.

In reference to purgatives he advises that moderate evacuations from the bowels be procured before giving the quinine, as thereby it acts more decidedly, and less of the remedy is required, more than this is not considered beneficial.

It is the author's opinion that much mischief is done in postponing the administration of quinine by a preparatory treatment, in order to procure a more perfect remission: severe cases dying while under this preparation, and mild cases becoming worse; and of whatever type or character the (remittent) fever may be, if the case is dangerous, no time is to be lost in bringing the system decidedly under the use of quinine. Gives it in the remission when this is well marked and of some duration, probably more from habit than anything else, but when the case is urgent gives it without regard to the stage of the paroxysm. "Two portions of from eight to sixteen grains each, according to the urgency of the symptoms given within a couple of hours of each other, will most generally bring the patient under its influence, two or three hours after the administration of the second portion." Where

the case is very violent, with but a short period, until the next exacerbation, the whole may be given at once.

After the system is fully under the influence of the medicine, eight grains every third or fourth hour, will produce all the good that can be obtained from it.

When there is an inflammatory complication, the remedy must be continued until this is subdued. If withdrawn too early, the local inflammation will increase.

Under the favorable action of quinine the pulse becomes less frequent, if it has been small and cored, it is increased in volume, and if hard and firm, is rendered soft.

The skin becomes moist and cool, the tongue moistens and the thirst diminishes.

In the pernicious or congestive remittents, we must be cautious in our administration of quinine. Here, where there is much real as well as apparent debility, if we do not give sufficient to arrest the disease at once, the patient may die in the next exacerbation, whilst at the same time, "it is to be dreaded that a quantity necessary to effect this, may destroy by its depressive action." If, as is often the case, the state of the stomach and bowels forbid the use of stimulants, opium is the best remedy to sustain the system against the depressing effects of quinine, whilst at the same time it controls the irritability of the stomach.

When the stomach is so very irritable as not to retain the medicine, even when thus guarded by opium, it is to be administered by enema,—twenty to thirty grains, every second hour, in two ounces of starch, until the desired effect is produced. "As a stimulant, the opium may be administered in the same way, as much as the patient can bear without narcotism." When diarrhoea exists, or when the rectum has been rendered irritable by laxative enema, 80 to 100 drops of laudanum may be injected in a little starch, previous to the quinine.

The existing impression that mischief must result from giving quinine, except during the remission, is unfounded. "So far is this from being true, that there is nothing with which we can more effectually aid in cutting short an exacerbation, than the quinine itself, commenced, and administered freely during that time." See Boling on remittent fever, *Am. Jour. Med. Sci.* July, 1846.

The experience of Dr. J. J. B. Wright, U. S. A., in Arkansas and Florida, with quinine in remittent fevers, is substantially the same as that already noted, as the following quotation will show.

"They who contend that its curative agency is due to a direct effect on the tonicity of the muscular fibre, would prescribe its use in all cases where this vital property, or the contractibility of the muscular system, might be presumed to be in an exalted position. But the physician experienced in diseases of southern climates will tell you that he is in the practice of administering it when the condition of these vital properties is, seemingly, at least, above par. For instance, he exhibits it at the very height of the paroxysm of the remittent fever of his climate, and finds as the result of its action, a reduction in the force and frequency of the pulse,—a diminution of animal heat,—a moist condition of the skin,—a subsidence from febrile disturbance to fair convalescence. Now, if the experience and observation are right, can the theory be otherwise than wrong? On the other hand, those who maintain that the remedy acts by sedation, do not hesitate to exhibit the article when the powers of life are depressed to the utmost limit compatible with existence; and they aver that its agency is curative under these circumstances. True it is that the writer has himself frequently given the quinine in both of the conditions stated, and in both his experience teaches that advantage resulted from the practice. He has witnessed a decided improvement to follow the exhibition of 3ij. of quinine, repeated in two hours, in advanced congestive fever, when the condition of the case was characterized by a lethargic state of the sensorial functions, verging on coma,—cold extremities,—cool surface, bathed in limpid perspiration,—dry and pallid tongue,—feeble and fluttering pulse, &c. And again, whilst on duty in Florida, in the summer of 1842, in charge of the General Hospital, it was his usual custom, after attentive observation of the safety of the plan, to exhibit twenty grains of quinine *at any period of the paroxysm* of the remittent fever of that country, and he is safe in declaring that the practice was successful—as the Quarterly Report to the Surgeon General's Office will testify, not a single death from remittent fever having been reported during the season, nor from its sequæ."—Wright on the use of Sulphate of Quinine, *N. Y. Journal of Med. and Collat. Sciences.* September, 1845.

Dr. W. H. Van Buren, late of the U. S. A., furnishes concurrent testimony of this mode of using quinine, in Florida.

In simple intermittents of every variety, he gave it in doses

of from 15 to 20 grains, from six to twelve hours before the chill, and, where there was no visceral or glandular disease, used no preparatory treatment.

In remittent fevers, the paroxysm being treated according to the particular indications, "The moment the skin becomes moist, without particular regard to the state of the pulse, I give from 20 to 25 grs. quinine, according to the severity of the case," &c., and repeat it in from four to eight hours. When the stomach rejected it, applied 60 or 80 grs. to a blistered surface on the epigastrum. In malignant intermit-tents found the same doses equally successful, but it was necessary to keep up its action for a longer period than in simple remittents.

In the congestive fever, had no precise limit to the use of the remedy, but believes that 40 grs. if retained and digested will suffice, combined with stimulants, internally and externally; under this treatment, considers the disease perfectly manageable, when it is applied in time by a physician of judg-ment.

In yellow fever, has never seen "any decided and permanent good effects from the use of quinine," though "employed in doses of every size in a number of cases," the writer be-lieves "that the primary seat of the disease in yellow fever, is in the *blood*, and not in the nervous system, as in miasmatic diseases. Derangement of the nervous system being the *con-sequence*, and not the *cause* of the disease." By this he wishes to "explain if possible," the inefficiency of quinine in the cases referred to. Van Buren's Report on the use of Quinine. N. Y. Jour. Med. Jan., 1846.

Abundant evidence has been adduced to establish the method of giving quinine, which the papers referred to advocate, in the *South*. But it still remains to be seen how far the same rules apply to the *North*. That it does not apply to all the portions heard from would seem to be proved, whilst in other localities the Southern practice, with certain modifications, can be followed with advantage.

Thus Dr. Geo. Mendenhall, of Cleveland, Ohio, found vene-section, local bleeding, emetics, and revulsives generally use-ful. Diaphoretics were "almost always necessary," and cathartics indispensable. The following extract will give an idea of the practice pursued.

"As a general rule, a depletory and cathartic course was necessary. These, with the other means which have been mentioned, had to be continued until a decided remission or intermission in the febrile action should take place, unless the system became too much reduced to bear them further. When the periodicity was well marked, and the tongue began to clean, quinine could be borne, and almost invariably with advantage. The quantity which we have been in the habit of giving during an intermission or distinct remission, was from ten to fifteen grains, dividing it into about five equal portions, and watching the effects of each dose (which were given about two hours apart,) until after the administration of the first two or three. When perspiration followed its use there could be no question of the propriety of its exhibition, and the result was then in all cases satisfactory." Mendenhall on Quinine in Fevers. *Am. Jour. Med. Sc.*, July, 1846.

Dr. Austin Flint, of Buffalo, has advocated the employment of quinine in large doses at that place. His practice in intermittents was to give from three to five grs. at a dose, repeated every one or two hours, rarely exceeding twenty grains in the twenty-four hours; and in general principles of his treatment for intermittents and simple remittents, coincides with the southern practice. Flint on the employment of quinia in large doses. *N. Y. Jour. Med.*, March, 1846.

Dr. Mendenhall in his paper from which I have quoted, objects to the general application, at the north, of Dr. Flint's practice on the ground "that nearly or quite all the cases which he (Dr. F.) treated so successfully with large doses of quinine without preparation, contracted the disease at some other place, and that in their removal to Buffalo, they were removed away from the 'continued, concentrated action of malaria.' In these cases, then, one curative means was complied with, which of itself is often sufficient to accomplish a cure, viz.: a removal from the cause of the disease."

Now, how far this was the case cannot here be decided. But I have had, during the past season, the evidence of my own, and other physicians' practice, that quinine can be given in large doses to arrest intermittents and remittents, with entire success. The form of remittent which we have had in Chicago and its vicinity, is that popularly called "Chill Fever:" there was generally during the remission an entire absence of heat of skin, the pulse remaining frequent though soft, the general pain and soreness in the severer cases also continuing. A com-

mon accompaniment was irritability of the stomach, so that in some cases, during the exacerbation, not even cold water in small quantities was retained. In the severer cases, the patients were delirious whilst the fever continued.

Usually, the only preparative treatment was a full dose of oil, after a small portion of calomel, the former given usually during the remission, as often the stomach would have rejected it at any other period. I generally found the remission more complete after the bowels had been emptied. In the next remission, gave about 20 grs. quinine with two or three grs. powd. opium, in four doses every two hours, often in two or three doses, and occasionally all at once, when I had not sufficient time to divide it before the accession of the chill.

I, in perfect confidence, anticipated the suspension of the disease, if not at the next exacerbation, certainly at the time of the second, and was very seldom disappointed. It occasionally was not arrested until the latter period, verifying Dr. Holme's observation that it requires about eighteen hours for the sedative effects of the remedy to be developed.

The usual adjuvants of cold to the head, warmth to the feet, diaphoretics, sinapisms, and blisters, were occasionally employed during the exacerbation, and the quinine was sometimes delayed a day or two to allay a very irritable stomach, but still the principal agent was the quinine, and I have often given it in remittents, with a dose of calomel without any preparation, and have never known any ill effects to arise from it.

As County physician, I had very many such cases among the poor population, most of whom were in an unfavorable situation as regards nursing, and all the ordinary comforts of sickness.

Here the experience of Dr. Mendenhall on the one side, and Dr. Flint, and some of us of Chicago, on the other, does not agree as to the best mode of using quinine in the North.

It is possible that peculiarities in the locations of the places, modify the disease. As it is, the subject requires a more extended observation in the northern portion of the country, which it doubtless will ere long receive.

H. S. H.

PART VI.—SELECTIONS.

1. *Observations on Croup*; a paper read before the Fellows of the College of Physicians and Surgeons, by ALEXANDER H. STEPHENS, M. D., President of the College.

The frequent occurrence of Croup, and its not unfrequent fatality in the northern and maritime regions, especially those of the United States, render important every addition to our knowledge of the nature and treatment of this formidable disease.

Up to the time of Dr. Bayley, of New York, no modern writer appears to have entertained correct pathological notions of this malady. It had previously been confounded with anginose affections of the fauces. It was, however, known to Hippocrates, who describes it in these remarkable words: “Ab angina homo suffocatur, oculi affecti sunt, ac velut strangulatis prominent; facies et fauces incenduntur, imo etiam collum intumescitur, vero nihil mali habere videtur.”

We owe to the late Dr. Hosack of this city, the best description of the various stages of croup, and probably the best practical directions for the treatment of it. Yet, there are important points both of pathology and practice which he leaves wholly untouched, and others in which, if I am not mistaken, he is inaccurate.

It is usual among the medical men of this city, to speak of genuine croup, meaning that in which a membrane is formed in the trachea, and of spasmodic croup, many of them believing that inflammation either does not exist at all in the latter species, or that it is not the prior or primary morbid condition. These views I hold to be erroneous, and if carried out in practice, highly dangerous.

Professor Ware, of Boston, (the most recent writer on croup,) has recently presented another view of the subject, in a well reasoned paper, wherein he records numerous cases and dissections, knowing how little that is truly valuable to the American physicians in relation to croup, is, to be found in European publications, more especially among the continental writers, or rather, how far they fall short in establishing those rules of practice, by which alone, the American physician can successfully contend with the formidable malady. I am led to infer that it may present itself under different aspects in different regions. Be this as it may, the division of croup proposed by Professor Ware into four species, viz: catarrhal, membranous, inflammatory, and spasmodic, does not accord with my own experience, or with that of the most sagacious and experienced practitioners in this city, with whom I have conversed on the subject.

The forms under which croup has presented itself to my

observation in this city, during a period of more than thirty years, are the following :

1. A child with coryza and occasional cough of the ordinary character, as in bronchitis, is playing about without sore throat, or redness of the fauces, or glandular swelling. He appears more than usually animated, his countenance, especially his eye, is unusually bright, and his mind exhilarated. His skin at this time is not heated during the day, but rather harsh to the feel and drier than natural. To an acute observer with a nice ear, his voice will be a little sharper than usual, and if he cries for a time, the peculiar inspiration will excite alarm. On the second or third night the attack of croup commonly comes on, after a few hours sleep, the symptoms being a ringing cough, hoarse inspiration and great roughness of voice. If the patient dies, a membranous formation is found in the trachea, and more or less in the bronchial tubes. This is what all admit to be genuine inflammatory croup.

2. Without any noticeable illness whatever, a child suddenly wakes up in the night with spasmodic suffocating cough of the peculiar croupy sound, the same inspiration as in the former case and the same hoarseness. A drink of some kind is given; the next cough is less sonorous, but the croupy symptoms as before described remain. The case is usually relieved by an emetic and some stimulating application to the throat, both of which are kept for that purpose in almost every well-regulated family in the city, where there are many children under eight years of age. If not so relieved, the patient may die within twenty-four hours or less, or after a lapse of two or three days, or even a week. Where the disease terminates quickly in death, no well formed false membrane is seen but only mucus in the trachea more or less thick, and redness about the glottis. This is the form to which the term spasmodic croup has been given. Spasm of what? Of the glottis undoubtedly, and from what cause? From the presence of vitiated secretions, and undigested decomposed food in the stomach, it is answered, and how does this act? By sympathy? Now, this cannot either be proved or even rendered probable. It is true when the stomach empties itself by vomiting, the symptoms for a time at least, and often permanently are relieved, but vomiting does more than unload the stomach. It relaxes the system, reduces the action of the heart, determines the fluids to the skin, which possesses so remarkable an antagonism to the mucous surfaces—above all it induces a copious secretion from the fauces, and thereby unloads the congested vessels of the glottis. It is admitted that an acid state of the stomach often causes irritation in the pharynx, which thence extends to the posterior part of the upper portion of the larynx. In adults this is beyond all doubt, and in children it is every way probable. Is the impression of these

acrid matters, eructated from the stomach or secreted in the pharynx, under particular circumstances, upon the larynx the cause of the sudden occurrence of croup? It would be difficult absolutely to disprove these propositions. In my mind they are not improbable, but on the other hand, admitting the connection between disordered stomach and croup, established as it is by the most extended observation, may it not be attributable in part, at least, to the fact that continued coldness of the surface is precisely the condition which fits the system, as well in childhood as in age, for the action of cold and moisture in producing inflammatory diseases?

But, setting aside these considerations, and under any view of the subject, what is the morbid condition of the glottis which gives rise to the croupy symptoms? If from cold it is inflammation, if from acrid secretions acting for more than a few minutes, it is and can be nothing else. There is, therefore, no spasmodic croup, if by spasm it is intended to exclude inflammation as a cause of that spasm.

But I am asked again how are the two kinds of croup above described to be explained pathologically. The answer to this query will appear in the classification of the forms of croup now proposed.

Under the term croup, properly so called, are included two affections, which may exist either separately or together.

1. The cynanche trachealis or trachitis, in which membranous exudation is more or less formed in the trachea before any affection of the larynx, and more especially of the glottis, takes place.

2. The cynanche laryngea or laryngitis or glottitis, in which the laryngeal or spasmodic symptoms occur first or exteriorly.

3. Between these two there are varieties of combination, and these constitute the great majority of the cases met with in actual practice. In the most pure case of the so called spasmodic croup, no practitioner can say beforehand that no fatal inflammation of the glottis will occur, or that no obstruction of the trachea by false membrane or solid mucus is to be apprehended.

Is the disease croup a specific disease? Is there any peculiarity in the inflammation which gives rise to that secretion in the trachea? Let us look to anatomy and physiology, and the observation of disease, and to dissections for answers to this question.

In the first place, between the most firm tubular form of false membrane and inspissated mucus and mucus of an ordinary consistence we see in dissection of croup every grade and variety. If specific, its character should be more marked.

When a child attempts to swallow hot water, the membranous exudation is produced in the posterior fauces and upper part of the larynx. Here then is an ordinary cause of inflam-

mation producing what some consider a peculiar and specific secretion.

This question has a bearing upon practice, because it is contended by some that the specific effect of mercury is the proper remedy for this specific secretion.

It remains for those who deny the specific character of the tracheal secretion to account for its existence there, rather than in the larynx and trachea. In the larynx it is more rarely met with, in the trachea it gradually becomes less tenacious, and more resembles ordinary or inspissated mucus. May it not be merely inspissated mucus in all cases? mucus inspissated by rapid desiccation? If a portion of mucus is left in the trachea, the increased rapidity of respiration, and the narrow calibre of the tube, must necessarily remove its watery particles in a doubly augmented ratio; less so in the trachea, because the same volume of air in proportion to surface does not pass by, and the air also is more charged with the moisture in its previous passage through the trachea—less so in the larynx, because that tube is larger. Rarely is the membrane seen upon the glottis, because death arises from spasm ere it has time to form on that irritable part. Rarely in adults, because in them the trachea is double the size it is even in advanced childhood, and because they exert a stronger volition to detach by hawking the first tenacious mucus that is adherent to the trachea.

The surface of the trachea is very unirritable. Where foreign bodies enter by accident, as when a tube is forced into it from an artificial opening, no coughing is induced unless by its rising up the glottis is touched. A small foreign body has been known to remain for years quietly lodged in one of the ventricles of the larynx. The trachea and the comparatively unirritable parts, are those in which inflammation may be going on for a considerable length of time, without exciting any very marked symptoms. This constitutes the true explanation of the two modes of invasion in croup.

Besides these three forms of idiopathic, primary, or true croup, the laryngeal, the tracheal, and the mixed—there are forms of secondary croup, such as occur in measles, scarlet fever, and more especially in the malignant ulcerated sore throat, the diphtherite of Bretonneau. This last occasionally occurs sporadically with us and is, I apprehend, very generally the disease which, under the term croup, carries off in quick succession two or more children in the same family. I have treated it successfully with calomel and opium, followed by wine whey, in conjunction with nitrate of silver, to the throat—but my experience is too limited for me to assume to instruct others in regard to its nature and treatment. The French writers do not appear to discriminate between this affection and croup, as known here and in Great Britain.

Before speaking of the proper medical treatment, I will say a few words on a point of Hygiene.

1st. What is the best method of bringing up children, with a view to their exemption from this disease?

Two systems are adopted for this purpose—one is to allow free exposure and exercise in the open air, except in the very worst weather. The children being well guarded with warm clothing, are not suffered to cease their exercise until they re-enter the house. The second is to confine them within doors, during the whole of the winter, and the early part of the spring. My observation leads me to think that although the first plan, if it is followed with great care, is the best, yet the second is more easily pursued, and upon the whole is the safest. 2d. Under what circumstances should especial precautions be taken, with a view to ward off the attack? A child between the ages of two and five years with catarrh and cough, however slight and unfrequent, is a fit subject for croup, and if that disease is prevailing at the time, an attack, after any exposure to cold and moisture, or any excess in eating, is almost probable. The child should be confined to the house and dieted.

The treatment of croup should be prompt and decided, for if left to itself, the disease would probably in general prove fatal. But although prompt and decided treatment is necessary, it does not follow that heroic treatment is always, or even generally required. But the existing symptoms must always be met by remedies adequate to subdue them. The great skill of an experienced practitioner is shown in determining what amount of active treatment is *essential* in any given case; how much is requisite to remove the threatening symptoms, and to induce a favorable change, and how soon he must recur to the more severe remedies, after the disease has been for a time meliorated.—*N. Y. Annalist.*

2. *Homeopathy*.—Dr. LINTON thus discourses of Homœopathy; we extract from an article on that subject:

We assert that Homœopathy, whatever of truth there may be in some of its speculations, is perfectly inert in practice; and if we fail in proving this assertion true, then facts are mere illusions; logic a humbug, and reasoning a farce. To proceed. In the first place, our disposition to try all things, has induced us to try "*Globules*." We have used them to ascertain their *pathogenetic* effects; we have taken the sulphur, but it caused nothing like the itch, which was promised us; we have used the quinine without experiencing the slightest symptoms of a chill; the belladonna, and nothing like hydrophobia followed. This we did at the suggestion of a Homœopathic practitioner. We have also tried these articles on some friends, without the slightest result. We have used

the "globules" in affections which we were confident would *get well of themselves*. Here they were successful, the patient got well! But then we tried another experiment. We selected several cases which we felt confident would *not get well of themselves*, and these we subjected to the treatment of one who ranked high as a Homœopathic practitioner. The result was in every instance a complete and *triumphant failure*.

The following gives the author's opinion of the shaking, rubbing, and spiritualizing process:

But again say the defenders of small globules, *the rubbing—the trituration* of the medicines increases their power and activity. Some of them say that it spiritualizes matter to rub it! Hence they grind their medicines very fine, and shake the vial of drops—they rub about six minutes at each trituration, and shake about six times at each dilution, though Hahnemann says that he had to reduce his shakes, so powerful did six make it!!!!!

Now, any one that is in danger of believing this monstrous nonsense, can easily test its truth or falsehood. A certain amount of arsenic will kill a dog—a small dose, say half a grain, will not hurt him. Give the dog then a half grain of arsenic, and watch its effects. Then take another half grain and triturate, and grind it, and rub it, until it is *spiritualized and strengthened* as much as it is possible by this process. Then dilute it, and shake it well *sixty times six*, and give to the aforesaid dog. If Homœopathy be true, it will kill him in a very short time; if Homœopathy be false, the dog will go about his business. An easier test would be to ascertain if shaking a tea-spoonful of brandy would enable it to make a man drunk. It would do so if Homœopathy be true.

Why, if this principle were sound, then the apothecary might double his stock at an hour's warning, not by the difficult and expensive process of importing fresh medicines, but by the easy one of *shaking* what he had on hand.

The liquid that was worth but one dollar, the dose being twenty drops, would be rendered of double that value by a few shakes, which would so strengthen it that ten drops would suffice! Sailors and soldiers would find this principle of great value; they would put a vial of whisky in their pockets, and, by shaking it, have grog enough for a voyage or campaign! Nay, armies might subsist on a little portable soup, increased in power and spiritualized by shaking! What an invention for starving Ireland! what a great trade shaking would be if Homœopathy were not a humbug! Instead of endeavoring to accumulate, the world would sit down satisfied to *shake* what it has already gotten?—*St. Louis Med. and Surg. Jour.* in *Western Lancet*.

3. Cases of Diarrhœa, with Emaciation, coming on after weaning, successfully treated with Creosote.—Dr. MAYES details two cases under the above head. The first, a little girl 15 months old, suffered with diarrhœa, after weaning; the following account is given of the patient's condition at the time of prescribing;

"Pale, leucophlegmatic countenance; abdomen tumid and very hot, complaining of much pain under pressure; stools excessively foetid and dark colored, also frequent; constant harrassing dry cough; great emaciation, so much so that the integument on the extremities seemed sufficient for a second covering; no appetite at all, and some irritability of stomach; cold drinks could be retained, but every thing else was refused. This assemblage of symptoms was indicative of a fatal termination of the case, and that speedily, unless some powerful remedy could arrest the progress of the disease. *Prescription.*—℞ Creosote, 5 drops; loaf sugar, 1 drachm; gum arabic, 1 do.; water, 2 ox. Mix intimately. A tea-spoonful was administered three times daily; at the same time the tepid bath, medicated by an astringent infusion, was used two or three times daily; after a few days the cold bath was used, medicated in the same manner. In less than three days the beneficial effects of this treatment were perceptible in the improved appearance of the alvine discharges. Her amendment from this time was rapidly progressive. The last mixture made up for her was—℞ Creosote, 6 drops; loaf sugar, gum arabic, aa. 1 drachm; carbonate of iron, $\frac{1}{2}$ drachm; water, 4 ounces.—Mix. The vial to be well shaken before measuring a dose. A tea-spoonful was directed three times a day. After using this mixture, no further medical treatment was thought necessary; but a nourishing diet and exercise advised."—*South. Med. and Surg. Jour., in West. Lancet.*

4. Case of Premature Development of the Mammary Glands.—We are indebted for the following facts to Dr. JOHN DAWSON, of Jamestown, Ohio:

To-day (July 30th) Mrs. M. presented her daughter to me for an opinion as to its condition. The child is a female, nearly three years of age. It has had good general health since its birth; is of light complexion, with fair hair and rather dark eyes; is of about the usual stature of children of its age, and is the only child the mother has ever borne. Some time since, its *mammary glands* commenced being developed, and they are now about the size of large oranges, apparently well proportioned, both of the same size, with *nipples* similar to those of young ladies at the age of puberty. Neither by inquiry of the mother, nor by my own examination, could I detect any other premature development either of mind or body.—*West. Jour. of Med. and Surg.*

5. *Congenital Dropsy—(Ascites.)*—This case was that of a female child nine weeks old. I saw it October 25th, 1844, when the mother informed me that, at its birth, the abdomen seemed to be unusually protuberant, and that shortly afterwards it became subject to paroxysms of restlessness and crying, for which anodynes were administered without producing any relief. At my examination the general system was not emaciated, nor was there any anasarca of the extremities. The skin was rather soft and moist. It sucked heartily, had more thirst than natural, and had a slight coat upon the tongue. The abdominal tumor was so great as to extend down over the pubis, and also upwards and backwards over the ensiform cartilage and false ribs.

I prescribed diuretic and purgative medicines, and directed iodine ointment to be rubbed on the abdomen twice a day. No amendment followed this prescription. The child fell into the hands of another physician, who tapped it and drew off a considerable quantity of water. It eventually, however, died.

—*Ibid.*

6. *A Case of Uncommon Acuteness of the Sense of Vision.*—There is living in this region a young man of 23 or 24 years of age, who is reported as being able to see, with his natural eye, *animalculæ* in common well and spring water. This faculty was noticed when he was some 15 or 16 years of age, by persons for whom he was at work, in consequence of his refusing very often to drink water handed to him, in which nothing could be discovered by common eyes. I made some experiments with him, enough to be satisfied that his case was no hoax; and did intend to have made more, but have lost sight of him, and suppose he has left the neighborhood. His complexion is fair; temperament sanguine; eyes blue, less than the common size, with very small pupils.—*Ibid.*

7. *Practical Remarks on Congestive Fever.* By E. F. BOUCHELLE, M. D., of Columbus, Mississippi.—In perusing the last edition of Stokes and Bell's Practice of Physic—a work embodying many valuable principles of medicine with great experience and learning—I am forcibly impressed with the views of Dr. Bell, as almost coincident with my own, as it regards the efficacy of opium in the treatment of congestive fever. I have long been satisfied in my own mind, that the usual mode of treating congestive fever, the plan pursued by most of the physicians of the south west, is not only improper, but dangerous; as its direct tendency is to strengthen the disease, and hasten the stage of collapse. The views which I now entertain on the subject of congestive fever have been promulgated throughout the sphere of my acquaintance, since the summer of 1837.

It is perhaps unnecessary to advance, in detail, a theory of the disease in question; suffice, for all practical purposes, to remark, that all of the leading phenomena of the disease are referrible to derangement of the organic system of nerves, more particularly. The excitement of congestive fever is irritable excitement, and in most cases so excessive, that it soon sinks the system into collapse unless moderated.

Such being a *syllabus* of my pathology, it necessarily follows, that in its treatment I invariably call in requisition those remedies whose known tendency is to allay nervous irritation, tranquillize the system, and produce sleep. Such remedies are to be found under the class of *narcotics*, and in another *great remedy* belonging to no particular class, which the hand of a merciful and all-wise Providence has disseminated throughout the universe; a remedy equally accessible to the rich man and the poor man, as it abounds in all places, and can be procured "without money and without price." I allude to *cold water*. The most powerful combination, however, to prevent the recurrence of a paroxysm, when the disease observes a remittent or an intermittent character, is morphine and quinine. In the whole course of my observation I have never known the congestive fever to observe any other than the intermittent or remittent type; unless the constitution is so frail, or the disease so violent, as to destroy the patient in the first paroxysm, which it often does; moreover, it is a rare circumstance if an individual, with the most robust constitution, survives a second or third paroxysm. Most usually, during the paroxysm, I prescribe *laudanum* and cold water, which rarely fail to conduct the patient safely through; and during the interval, morphine and quinine, to prevent a recurrence. The following is the prescription usually observed:—R. Sulph. quinine, grs. xxiv.; Sulph. morphine, grs. ii.; M. f. 12 pills,—to take one sufficiently often to keep up a slight state of stupor or narcotism; that is, every hour or two, *pro re natâ*.

I am unfriendly to large doses of quinine, and am certain that two or three grain doses repeated at intervals, will insure all the good effects of that potent salt, without incurring the risk of losing them; not only losing, but inflicting an injury to the nervous system. Our firm belief is, and that opinion is founded on experience, that, as an antiperiodic, two grain doses of quinine are as efficacious as larger doses; and that in the same proportion as we augment the dose, in the same or a greater degree do we diminish the specific action of the article; also, that its combination with a narcotic enhances its antiperiodic powers in an eminent degree.

There is a secret in connection with quinine which, probably, very few physicians have observed; that is, that its administration during the stage of excitement in fever is often hurtful, and at best uncertain; in order to insure a favorable

influence in such cases, we have only to combine it with an anodyne. It is rare that quinine will exert any other than a favorable influence during the hot stage of fever, provided morphine be blended with it. Its most common effect, under such circumstances, is to lessen the force and frequency of the pulse, relax the skin, and produce sleep. The above combination is an admirable prescription in the summer fevers attended with great gastric irritability,—it must be given in the form of pills. Another valuable combination, where the excitement is inordinate, is quinine, tartar emetic, and morphine,—provided there is no great nausea. The above refers only to summer and autumnal fevers, of open excitement.

Before leaving this subject, I will remark that 20, 60, and 100 grain doses of quinine are very common these days. However, such doses are not prescribed, or if so, by *very few* of the scientific physicians of Mississippi and Alabama. In the meanwhile I will not presume to deny that peculiar modifications of disease may render *such doses* applicable in more southern latitudes. Generally speaking, these huge doses are given by that numerous class of mountebanks and impostors who infest our country; men who recognize no essential difference between the stomach of a human being and that of an ostrich; between the constitution of a man and that of a horse! Would to God that the prescribing of large doses of quinine was the only species of quackery practised in the West! Calomel, and other remedies, are given in equally as large quantities; to the success of which *energetic empiricism*, our numerous grave-yards bear melancholy though silent testimony, to say nothing of the thousands of constitutions literally destroyed by as *many anomalous diseases!*

There is a maximum and a minimum dose for any article of the *materia medica*—a fact which should never be forgotten in clinical practice—and when we transcend either degree, we either produce no effect at all, or we do mischief.

There is no class of remedies, however, whose dose is more variable than that of narcotics. Indeed, we can sometimes give them *ad libitum*, with very little effect; as we all know, that under certain states of the nervous system arising from excessive pain, the system can scarcely be composed by opiates. Who has not seen this verified in prescribing for acute gout, the passage of biliary calculi, spasmodic cholic, tetanus, &c. &c.? One of these peculiar conditions of the system occurs in congestive fever,—as we are certain that during one of its paroxysms nothing short of mammoth doses will conduct the patient safely through, and prevent collapse; which extraordinary resistance to the usual influence of opiates only argues the propriety and necessity of such remedies. I do hope, for the sake of human life, and the honor of medicine, that the day will, ere long, arrive when physicians will be

convinced that calomel and purgatives generally, French brandy and other stimulants, mustard cataplasms, blistering plasters, &c., are not the remedies for congestive fever, the endemic of the Mississippi valley, whose very name, in many places, is associated with all the horrors of the grave, in consequence of its great fatality. All purgatives, all stimulants, internal or external; all irritants—are injurious in congestive fever. So long as I pursued the plan of *correcting the secretions, and stimulating by brandy, camphor, camphor and quinine, ammonia, pepper, &c.*, I lost patients. But when, on the other hand, after much reflection, I had changed my pathology of the disease, and adopted the *cold water* and *anodyne* practice, my labors were crowned with success, and have been ever since. In truth, the most violent forms of congestive fever will as certainly yield to the anodyne treatment, as will a local inflammation yield under depletion. I do not regard quinine as a stimulant; it has tonic properties, and in combination with an anodyne, is the most powerful sedative in general use. (There are many sedatives very active, which are not used in the common routine of clinical practice.)

We have said nothing definite, as yet, about cold water in congestive fever, but will do so in very few words. How is the cold water used in congestive fever? Internally and externally; a pleasant remedy, and one which any patient will grasp eagerly, and without much persuasion. I use the cold douche in collapse to arouse the system to reaction, which it will more often do, than any other means that I have ever seen essayed. I have seen many patients, as it were, moribund; cold and clammy skin, thready pulse, sunken features, blue finger nails and lips, great epigastric oppression, and breathlessness, rescued, as it were, from the grave, by the *magic influence* of the cold douche. The cold water is not less useful during the paroxysm, to allay general anxiety, distressing vomiting, thirst, and internal heat. I allow the patient to drink it freely,—it gives great relief; it removes, in connection with laudanum, irritation of the ganglionic nerves, upon which the miserable epigastric oppression and gastric irritability depend, and seldom fails to conduct the patient safely through the paroxysm. How much more rational such treatment is, and, at the same time, how much more grateful to the languishing sick man, than the opposite plan of tormenting him *unto death* with heating stimulants and *blistering plasters!* How much more rational than the opposite *vile* system of cramming his stomach with horse-doses of calomel “to remove congestion” of the *darkest and foulest* of all places, “*the venous cavity*”!!! Would to God that Mississippi and Alabama could be relieved of the curse of R. A. C. quackery! Oh! ye shades of departed worth! ye ghosts of Hippocrates, Æsculapius, and Galen, how long will ye endure such humbuggery! Oh!

"venous cavity"! Oh! calomel, and R. C. A. pills! inexorable monsters, who have slain your hundreds, why seek to demolish thousands! I am not jesting; no, I am serious.*

But, for the purpose of illustrating the most rational practice in congestive fever, I will submit one of the most violent cases I ever saw in Mississippi.

Case.—A particular friend, of vigorous constitution, was seized about midnight on the 20th of September, 1845, with a slight chill, which was succeeded by vomiting, and profuse liquid evacuations from the bowels. I saw the patient about 9 on the 21st; his head was hanging over the side of the bed, and he incessantly vomiting or heaving; his features were sunken and pale; breathing rapid, and difficult from congestion of the lungs; pulse feeble and very rapid, almost imperceptible at the extremities; lips blue, tongue pale and moist; with a clammy exudation of viscid perspiration all over the surface. Indeed I was surprised to find my friend on the very verge of the grave: that he was sinking rapidly into a deadly collapse. He complained of great thirst and universal heat; he would cry out, "My God, I must have fresh air, or I'll die; I am burning up!" when the pulse was gone at the extremities, and the skin cold. The friends around implored me to stimulate him, and apply sinapisms to the extremities. I refused, and immediately went to work in my own way. I gave him 100 drops of laudanum forthwith, and in half an hour gave 50 drops more, which he drank. Seeing that the irritability of the system was so excessive, that the laudanum would not take effect, unless repeated at short intervals—in half an hour more I gave him 100 drops by enema.

In an hour the vomiting stopped—my friend drinking cold water by the pitcher full. He very soon became tranquil, and fell into a deep sleep, with his mouth and eyes half closed. The spectators around thought that he was dying; but I knew better, when I took hold of his hand and found that it was getting warm, and that the pulse was rising at the wrist. In the course of two hours more, my patient was under a full re-action; his skin warm and pulse full, beating eighty in the minute. He did not wake until sundown—when he got up, dressed himself, and went about his usual business!!

The next morning (22d) I entreated him to take to his bed, and commence with the quinine and morphine, to prevent a recurrence of the paroxysm, which would take place about midnight.—He declined, stating that he was well. However the poor fellow was seized again at one o'clock on the 23d. In two hours he was vomiting forcibly, with frequent liquid dejections from the bowels; great dyspnoea, and small and

* I do not allude to Prof. Cooke; but to those who endeavor to treat the fevers of Mississippi, Alabama, &c., according to his theory. I respect the Professor, at the same time I am convinced of his delusion.

rapid pulse, with cold skin. At daylight I saw him, and gave the first dose, which was 100 drops of laudanum. Seeing that he became worse, complaining of indescribable epigastric heat and oppression, I repeated the dose, which had no effect, as he soon became wild and unmanageable. I ordered 100 drops more by enema, in starch; at the same time allowing him to drink freely of cold water, acidulated with citric acid, which he drank, in his derangement, with all the avidity of a famishing animal. He soon became cold from head to foot; *no pulse*, skin cold and bathed in a viscid sweat, lips blue, eyes sunken, and features shrivelled; breathing slow, and oppressed from congestion of the lungs. Indeed, the dyspnoea was so great, that he looked very much like a man suffocating. I ordered 100 drops more in enema, and applied two small sinapisms to the neck, one over each pneumogastric nerve, recollecting to have read of such things being useful in asphyxia, &c. In a short time the patient seemed more quiet,—drinking freely of cold water occasionally. At this juncture, a medical friend of experience, formerly of the United States Navy, stepped in and pronounced my patient *in articulo mortis*; however, before he had been present one hour, the pulse was rising at the wrist, and the skin began to get warm, and the patient to breathe with more ease. In two hours more my patient was lying in a profound sleep, with hot skin and good pulse; with the warm sweat standing in great drops on his forehead. He awoke late in the evening, very much prostrated indeed. In a short time I put him under the morphine and quinine, keeping up slight narcotism until the next period had passed in safety; when I gave a little blue pill occasionally, to restore the secretions. It is proper to mention here, that the use of laudanum and quinine, as above recommended, almost always leaves the system in a torpid condition, as manifested by a coated and dry tongue; so that convalescence will be tedious without the occasional use of a little blue pill, &c.

The patient whose case I have given, cannot bear the smallest quantity of laudanum when well. I could, if necessary, adduce other cases, showing conclusively that laudanum, cold water, and quinine, are the remedies for congestive fever. It is probable that the above patient would have died, had it not been for the plasters (size of a dollar) to the neck; or it may be that the laudanum had not taken effect until then.

The treatment which has just been detailed in a detached and hurried manner, with some little modification, is applicable to any form of summer and autumnal fever in Mississippi. There is no prescription better, in common evers, to prepare the system for quinine, than morphine and tartar emetic in solution. Ordinary febrile excitement can resist its influence but a few hours. In conclusion.—There is no class of reme-

dies which exert so favorable an influence in all of the fevers of this latitude, as the class of narcotics.—*West. Lan. in Bull. of Med. Science.*

7. On a Remedy (the Ambrosia Trifida) for Mercurial Salivation.—By W.M. ROBERTSON, M.D., of Harrodsburgh, Ky.

One of the most common plants on our farms, possesses, as I have discovered, more prompt and efficacious remedial powers, in the cure of mercurial salivation, than any article I have ever seen tried for that loathsome disease. During a practice of forty years, I have seen the disease in all its forms, and various remedies employed for it, but do not recollect to have ever witnessed an obvious curative influence exercised by any of them.

The remedy I have lately adopted, in every case in which I have tried it, has proved a speedy and effective cure, relieving the patients in from six to eight hours, removing every symptom of salivation. However, I would observe, that all these cases have been of a mild character, or in the incipient stages. What influence this remedy would exert in those violent cases of the disease occasionally met with in practice, attended with extensive swelling, ulceration, sloughing, and falling out of the teeth, I am unable to say, having met with no such case since my adoption of the article; but I think it probable that such a case would call for the use of other remedies. Nevertheless, the use of this remedy, in the commencement of such cases, would, very probably, arrest their progress, and prevent their attaining an aggravated form. In this view, I am sustained by the result of a case that came under my notice within the last month. In this case, the power and influence of this medicine, to control mercurial salivation, were most strikingly exemplified. It was that of a female, aged thirty-five, in the eighth month of her pregnancy, of delicate frame and phlegmatic temperament, and predisposed to hysteria. She was advised, for habitual costiveness and torpid liver, to take one or two doses of calomel, milder purgatives having procured only momentary relief. The calomel was retained about thirty hours, although followed by a large dose of castor oil, in ten or twelve hours. The consequence was, a violent attack of mercurial salivation. Within twenty-four hours from the attack, some unusual symptoms having manifested themselves, the family became alarmed, and I was hastily called to visit her, five miles in the country.

The bowels having been evacuated by injections, I found the patient without fever, and only complaining of the salivation. The gums and mucous membrane of the mouth were inflamed, a little swelled, and had a soft, puffy appearance; the whole surface was covered with thick viscid mucus,

adhering with unusual firmness, and so offensive in smell and taste to the patient, that every effort to discharge it was attended with nausea and vomiting; a putrid effluvium was exhaled with every breath, along with the mercurial fetor, perceptible and offensive to the bystanders. It was this symptom that had alarmed the family: they concluded that mortification had already taken place. All perception of taste had ceased, and food and drinks were rejected with disgust. The putrid smell perceptible in the breath evidently proceeded from the viscid mucus, adhering to the mouth and throat, acquiring a putrescent tendency, from being detained there long after the secretion was thrown out from the secreting glands, &c. This was proved by an examination of the secretion; when discharged (as it was with great effort) into some vessel, the same putrid smell was present, and the mucus was about the consistency of the white of an egg.

This case of pure mercurial salivation—I say pure, because this disease is very generally accompanied by other diseased conditions of the system—afforded me the best opportunity I had seen of testing the powers of the remedy. I immediately procured from an adjoining field a large handful of the green leaves; poured on them in a suitable vessel one quart of boiling water; as soon as it was cooled sufficiently, the patient was directed to wash the mouth and throat freely every half hour; nothing else was used except the common soda powders; they were given every three hours, in an effervescent state.

I remained with the patient six hours. By that time the mouth and throat were cleared of the thick viscid mucus; the nausea and vomiting had ceased entirely; the natural taste was nearly restored; the patient felt greatly relieved, and partook of some light food with relish. The next day she was still improving and comfortable, and on the third day, within forty-eight hours from the time of commencing the use of the remedy, every symptom of salivation was removed, and the female was engaged in her usual domestic vocations.

I will give another case, which occurred within the last two weeks, because there is a fact connected with it, giving rise to an opinion that the remedy may prove beneficial to inflammation in mucous membranes, arising from other causes than mercury. A gentleman, from bathing in a river, took cold. He called on me, complaining of headache, sore throat, a stiff neck. He was bled; some active cathartic pills, containing a small quantity of calomel, were given, with directions to use them so as to keep the bowels in a solvent condition; to use a light diet, and apply vol. liniment to the throat. Three days afterwards he called on me, to inform me that the pills, as used, had not been active enough, and that he was salivated; the sore throat still continued without abatement.

I gave him a handful of the fresh leaves, and directed him how to use the infusion. He afterwards informed me that twenty-four hours' use of the remedy removed every symptom of salivation, and that the sore throat had also been cured. He further informed me, that at the time he received the remedy, he felt so badly about the mouth and throat, that he did not expect he would be able to preach for a week (he is a minister of the Gospel); but that, after using the remedy, he found himself as able to preach at the end of two days, as ever he had felt in his life.

May not this remedy prove beneficial as a local application in leucorrhœa, prolapsus uteri, and gonorrhœa, also in various affections of the throat? I shall certainly, in future, extend its use to diseases of this character; and I hope that practitioners of medicine, especially those residing in districts where the plant abounds, may be induced to give it a trial, and report to the profession the result of their practice.

This plant is known in all parts of Kentucky, and is known to all our farmers under the popular names of horseweed, richweed, horsemint, and horsecane; but it is an entirely different plant from that described in the appendix to the fourth edition of *Wood and Bach's Dispensatory*, at page 1137, under the title of *Collinsonia Canadensis*, and vulgarly known by names similar to those applied to the Kentucky plant.

I was induced to make trial of this plant in mercurial salivation, from the fact that this plant, when given to a horse affected with a disease called slabbering, effects a complete cure of the disease in a few hours.

This salivation, or slabbering disease in the horse, doubtless proceeds from some diseased condition of the salivary glands. About two years ago, passing a field where the plant was abundant, its effect on the salivated horse occurred to my mind, and immediately a question suggested itself—that if this remedy can exert such speedy and such surprising effects on the salivary glands of the horse, may it not possess properties that would render it useful and beneficial in salivation in the human subject? Under this impression, I resolved on a trial of its powers in the first case that should present itself. The trial convinced me that it possessed powers for relieving and curing mercurial salivation, greatly surpassing any means I had hitherto used; and subsequent experience has firmly established that conviction.

The effects produced by the local application of the infusion in the human subject, induces me to think that the effect it produces on the horse, does not arise from the plant taken into the stomach and reaching the diseased glands through the medium of the circulation, but that the direct application of the juice of the plant, while the horse is chewing it, effects the cure. It has so happened, that all the cases in which I have

had occasion to use the remedy, have occurred during the spring, summer, or fall, when the plants are in a green state. I have the dried leaves, but have never used them; whether the leaves lose any of their virtues by drying, I am unable to say. I have never heard of the plant being used, in any shape, as a medicine, until I tried it as a remedy for salivation.

[Dr. Robertson was polite enough to send us, with the above communication, some dried specimens of the above plant, which we submitted to our friend, Dr. R. E. Griffith, an able botanist, from whom we have received the following note:—

Dr. Hays:—Dear Sir,—The plant you left with me appears to be *Ambrosia Trifida*, though, from the absence of flowers or fruit, it is difficult to decide with absolute certainty; at the same time, the character of the leaves and stem are so striking, as to leave little doubt on the subject.

Torrey and Gray (*Flor. Nor. Amer.*, ii. 290,) describe it as follows:—"Stem tall and stout, hairy, rough; leaves scabrous and hairy, deeply three-lobed; the lobes oval, lanceolate, acuminate serrate; the lower leaves often five-lobed; petioles narrowly winged, ciliate, racemes often paniculate; fruit (fertile involucr) turbinate-obvoid, with a short conical pointed apex, six ribbed, the ribs terminating in as many crista-tate tubercles.

"Low grounds, and along streams, Canada to Georgia, and west to Louisiana and Arkansas. Aug.—Sept. annual."

It is also noticed by Riddell (*Synop. Flor. West. States*, No. 1014) as everywhere abundant: he gives the vulgar name of bitter-weed to it. Rafinesque (*Med. Flor.*, ii. 190) speaks of it, and says that it is called horseweed, one of the names given by Dr. Robertson, and states that the species of ambrosia are antiseptic.

The *A. Trifida* has not, as far as I can ascertain, been employed as a remedial agent, though some of the other species have been used, with some success, as febrifuges. Should the present plant, on a more extended trial, be found to be as successful in cases of mercurial salivation as is shown by Dr. Robertson, it will be a very important addition to the *materia medica*. It is to be found in abundance in the vicinity of Philadelphia. It is probable that the *A. Elatior*, or rag-weed, so common in all our fields, would prove still more efficacious, as its sensible properties are much more developed than in the present plant.

Yours, &c.,

R. E. GRIFFITH, M.D.]

Am. Jour. of Med. Science, in *St. Louis Med. & Surg. Jour.*

DR. JOHN B. BECK, on *Emetics in Children*.—The name of the Brothers Beck has been rendered classical in American

literature, by the great work upon Medical Jurisprudence, composed by them in company. Our own fellow citizen, Dr. John B. Beck, has long been known to the profession here and abroad, as the able professor of *Materia Medica* in the College of Physicians and Surgeons in this city; as a man of vigorous intellect, a scholar of extensive learning, a physician of great sagacity, and the author of many valuable papers indicative of sound judgment, and possessed of the highest practical value. His essay on *Laryngitis* (see his *Medical Researches*) as we will hereafter show, contains much that has been appropriated, without acknowledgement, by subsequent writers on this disease; and no abler argument has yet appeared upon the non-contagiousness of yellow fever, than that republished in the same volume. In the September number of our cotemporary, the *N. Y. Journal of Medicine*, Dr. B. has published as a sequent to a previous one on the use of opium in early age, a paper upon the "effects of emetics in the young subject," so characteristic of its author, so interesting, so practically true and important, that we shall make not the slightest apology, for laying before our readers very copious extracts.

"With the exception of cathartics, there is no class of remedies more generally resorted to in the management of the diseases of children, than emetics; and in a large number of cases, there is certainly none more useful. They are active agents, however, and like all agents of this description, are capable of doing good or evil, according to the manner in which they are given.

"In a previous paper, I endeavored to point out how the effects of opium were modified in the infant subject. On the present occasion I propose to pursue a similar investigation in relation to emetics.

"As it regards the mere mechanical act of vomiting, young children perform it more easily than adults. This is a fact which has long been observed by practical men, and about which there can be no question. It is, no doubt, a wise provision of the Creator, to enable the child to relieve itself from the effects of an overloaded stomach, to which it is so constantly liable in the early period of its existence. Although the fact has thus long been known, and the intention of it is obvious, yet the reasons have not been so well understood. They appear to be the two following.

"In the first place, from the experiments of Majendie, in relation to the manner in which vomiting is performed, it would seem that, in that process, the stomach is in a great measure passive, and that a certain degree of pressure upon it from the surrounding organs is absolutely necessary, before vomiting can be accomplished. This pressure is made by the con-

traction of the diaphragm from above, and of the abdominal muscles from below, upon the viscera surrounding the stomach. As a matter of course, the pressure thus exerted will be greater or less, according to the volume of the viscera. Now it is well known that in the early periods of life, the abdominal viscera have a much larger proportional size than they have in the adult. This is particularly the case with the liver. In early life, therefore, during the act of vomiting, the pressure made upon the stomach by the surrounding organs must necessarily be greater than it is in the adult, and in consequence of this, the greater the ease with which the organ is evacuated.

"In the second place, the shape of the stomach in the infant is more favorable to the easy evacuation of its contents. That the stomach undergoes successive changes in its shape, from birth onwards, is a fact, which although but recently investigated, is, I believe, well established, and for its elucidation we are indebted to the labors of Prof. Shultz, of Germany.

"The foregoing considerations would seem to account very satisfactorily, both physiologically and anatomically, for the fact with which we started, that the mechanical act of vomiting is performed with greater ease in the child than in the adult. If vomiting, then, be induced in a child by mild agents, the whole process is performed with greater facility than by the adult. This, then, is the *first* peculiarity in the effects of Emetics in children.

"If, on the other hand, *Emetics of an active and debilitating character, and which produce much nausea, be used, the effects are more uncertain and energetic than in the adult.* The articles to which I allude are the antimonial emetics, and these are frequently hazardous to young children, and that, too, when used in doses not peculiarly large. The immortal Sydenham seems to have been fully aware of this fact. In speaking of the continued fever of 1661, 2, 3, and 4, he says, 'it has often been a difficulty with me, when called to infants and children in a fever, and observing an emetic indicated, whereby they might have been preserved from danger, that I durst not give them this infusion (*crocus metallorum*), for fear of a bad consequence.'

* * * * *

"I have known a case occurring in this city in which the thirtieth part of a grain of Tartar Emetic given to a child a year old, labouring under croup, produced such severe and protracted vomiting, together with general prostration, as to require stimulants to save life. Some years since I was called to see a child about three years old, who had been attacked with scarlet fever. The symptoms at first were mild, and no danger was apprehended in the case, when it was suddenly taken with such alarming symptoms of prostration as to call for a consultation. On inquiry, I found that the attending

physician had been prescribing small doses of Tartar Emetic. Notwithstanding the use of stimulants, the child died in an hour or two after I saw it. I then suspected, and have since been confirmed in the correctness of the suspicion, that the medicine had no little agency in bringing about the fatal result. The child was naturally delicate, and there certainly was nothing in the symptoms of the case to account for such a termination.

"The foregoing facts would seem sufficient to show the *uncertainty* as well as *energy* with which Tartar Emetic operates on the young subject, and the causes are obvious. * *

"While Tartar Emetic operates in this way on the young subject, Ipecacuanha is never known to be followed by any injurious consequences. To the young infant it may be given, not only with impunity, but frequently with the greatest benefit. Why this is so must be manifest, if we reflect for a moment upon the peculiar properties of the two articles. Although both are emetics, yet they differ widely from each other in many important respects. The one is a mild article, limited in its operation to the stomach, upon which it never produces anything like local irritation, even when given in large doses. The other, besides acting as a powerful emetic, is a direct sedative capable of producing general prostration, and in some cases acting as a local irritant to the stomach and bowels, showing itself in excessive vomiting and diarrhoea. * *

"Now the due understanding of these peculiarities is evidently of the highest importance in the use of Emetics in children, and upon the mind of the student and young practitioner especially they cannot be too deeply impressed. From the manner in which medicines are treated of in classes, in most of the books of Materia Medica, and in the lectures on that subject, the student is insensibly led into the belief of a greater resemblance between them than really exists in nature, and it is only after he has had some experience of his own, that the error is corrected. He cannot, therefore, too early in his career learn that all classifications are artificial—not founded in nature—that medicines are arranged in classes, merely for the sake of convenience; not because the articles under each class are precisely alike, but because they resemble each other in some one or more important feature, while in other respects they differ greatly. No two medicines, even in the same class, are precisely similar, and in acquiring a knowledge of them, the study of the points of difference is even more important than those in which they resemble each other.

"From the foregoing considerations, it appears to me that some inferences of practical value, to the young practitioner at least, may be deduced.

"1. As a general rule, we need not be afraid of vomiting the youngest child, provided the means used be mild—such

as ipecacuanha, &c. The mere act of vomiting is attended with no danger, while the remedial agency of an emetic is one of great power and value.

"2. The vomiting induced by the preparations of antimony ought to be resorted to with great caution in very young children, and should never be used except in those cases where a sedative effect is required, and can be borne with safety.

"3. The *continued use* of Tartar Emetic in young subjects, cannot be too specially guarded against. It is in this way, probably, that it is so apt to prove injurious. A single dose, even though it vomits very freely, may be borne with comparative impunity, while its repetition may keep up nausea and intestinal irritation, so as to cause injurious prostration. This is very likely to happen in cases of a chronic character, like hooping-cough. Although mild emetics are among our best remedies in this disease—and where the subject is old enough, a single emetic of antimony is frequently exceedingly beneficial—yet the repeated use of antimonial emetics, as is too often the case, appears to me to be a great error in practice. It is not indicated by the nature of the symptoms, and violates a great rule which ought always to be observed in the management of chronic cases, and that is, not to break down unnecessarily the strength of the patient. Again, in ordinary catarrhal affections in children, a good deal of mischief is frequently done by the continued use of expectorant mixtures containing this active article. The Hive Syrup of Dr. Coxe, which is now in every family, and is given on the slightest occasion to infants, without even consulting a physician, has, I am convinced, done a great deal of harm. I say this without wishing to undervalue this preparation. In proper cases it is really a useful article, but persons out of the profession ought to know that its principal efficacy is owing to the quantity of Tartar Emetic which it contains, and that the indiscriminate use of it in cases where mild articles are required, must be injurious.

"4. As the effect of Tartar Emetic on the system cannot always be measured by its emetic operation, even in the adult, this fact ought to serve as a caution against the too common practice of giving repeated doses of it to produce vomiting in children, when they happen to be narcotized. While it fails to vomit, it may still operate as a poison to the system. In all cases of this kind, the proper method of treatment is, not to push the emetic, but to endeavor to restore the sensibility of the patient, and then sometimes vomiting comes on at once.

"5. In using Tartar Emetic in children, especial regard should be had to their constitutions. In those naturally delicate, and especially where the scrofulous diathesis exists, it

should never be used if it can be avoided. Prostration is much more apt to ensue in them, and where the article is persisted in for any length of time, is sure to do harm.

"6. It is perhaps hardly necessary to say that if Tartar Emetic be an article of such danger, the younger the subject to whom it is given, the more likely it is to do harm. In children under a year, I should say, as a general rule, it ought never to be used."—*N. Y. Annalist.*

9. *Malpractice in Midwifery. Alleged Death from Haemorrhage.—Charge of Manslaughter against the Medical Attendant.*—An inquest was held at Towcester, on Sat. Aug. 15th last, to inquire into the circumstances attending the death of Ann Smith, who died shortly after her confinement, from the alleged improper treatment and neglect of her medical attendant.

It appeared from the evidence of the witnesses, that the woman was taken in labour of her first child about the middle of the day on Friday. Mr. G— (M.R.C.S.E.) was sent for, and arrived in about an hour; he told them she was going on well, and that he would return in a short time. He did so in about three quarters of an hour, and remained within call, (but not in the patient's room.) He was several times requested to go up "to help the woman," but did not until immediately before the birth of the child, which took place about six o'clock. He tied and cut the cord in the usual manner, and shortly afterwards, in making traction, broke it off at its attachment to the placenta; a gush of blood followed, but the nurse could not speak with confidence as to the quantity. Mr. G. then gave the patient a dose of tincture of opium, telling the friends there was something more to come, and left, promising to return between eight and nine o'clock. A short time after Mr. G. left, the patient became very faint, and one of the women noticed a pool of blood on the floor under the bed. A messenger was dispatched for Mr. Collier, surgeon, who attended without delay, and found the patient exsanguineous, and in a state of syncope. He immediately removed the placenta, and ordered wine and brandy to be administered. The haemorrhage ceased after the extraction of the placenta. Mr. Collier then sent home for ammonia and other stimulants; but death took place before the return of the messenger.

In answer to questions from the coroner and some of the jurymen, Mr. Collier said, that he considered it very improper for a medical man to leave a patient while the after-birth was retained, and that, on breaking the cord, he would directly have proceeded to extract the after-birth. The administration of the laudanum at that period was decidedly bad practice, the tendency of its operation being to prevent further contractions of the uterus, which might have effected the expulsion

of the placenta naturally. From the cord being torn off at its attachment to the placenta, he believed that an improper degree of force had been employed in the traction.

The coroner then said that "the jury had heard the evidence, which he thought he need not repeat, and it was now their duty to say what was the cause of death, and to decide whether any or what amount of culpability attached to the medical attendant, Mr. G."

In about half an hour the jury returned the following verdict:—"That the cause of the death of Ann Smith was excessive haemorrhage, and that occasioned principally by the neglect and improper treatment of her medical attendant, Mr. William G."

The coroner said that this did not amount to manslaughter, and consequently he had no authority for proceeding further.

On the following Monday, the husband of the deceased entered a charge of manslaughter against Mr. G. at the Worcester Police Court.

The superintendent of police took Mr. G. into custody, and on Tuesday brought him before the sitting magistrates. The evidence was nearly the same as at the inquest.

The legal adviser of the accused commented strongly on the fact of there being no haemorrhage, and the woman appearing very comfortable at the time Mr. G. left her. He went on to suggest the probability that the woman's life might have been saved had the women been attentive to the case, and sent for the surgeon at the time the haemorrhage commenced, instead of waiting till its existence was accidentally discovered by one of them seeing the blood on the floor. It had been proved that Mr. G. had promised to return between eight and nine o'clock, and it was a well-known fact, that formerly medical men were constantly in the habit of leaving their patients for some hours when the after-birth was retained, waiting for the powers of nature to accomplish the delivery, and he believed that it was frequently done now.

After consulting together for a quarter of an hour, the magistrates requested Mr. R. Watkins, surgeon, to give an opinion on the case. Mr. Watkins, having been sworn, confirmed Mr. Collier's view of the case, and detailed the usual mode of treatment under like circumstances. He had never left a midwifery patient till after the removal of the placenta: it was not usual, and he would not do it under any circumstances. If his attendance were required at a second midwifery case, he would not leave the first until the placenta was removed, even though no haemorrhage had taken place. He was aware that, formerly, in many cases the patient was left before the after-birth came away; he had read of a fatal case, which occurred in the practice of an eminent physician from this cause.

After a lengthened consultation, the magistrates decided, that, although great neglect and improper treatment had been proved, the evidence was not sufficient to support a charge of manslaughter. The case was accordingly dismissed.—*Lancet*, in *Bull. of Med. Science*.

10. On the Non-Mercurial Treatment of Syphilis. By DR. SCOTT.—Dr. Scott made some observations on the importance which attaches to the history of Syphilis. No subject could be more full of interest, or prove more clearly the necessity of strict investigation into what are considered the most established doctrines in medicine. Thirty years since there was no doctrine in the profession which was considered to be so well founded as the treatment of syphilis by mercury. In England none presume to differ from the opinion of John Hunter, that the disease was incurable without mercury, and not only that the medicine was required to remove the disease itself, but that to cure the disposition to it, and to secure the constitution from its ravages, an extended course of mercury was required. Sir Benjamin Brodie still retains this opinion; and Dr. S. observed that he would not have probably called the attention of the Society to this subject, had he not observed, in the lately published Essays by Sir Benjamin, some remarks, which, from so high an authority, appeared calculated to lead to what appeared to him an injurious line of practice. Every now and then a dissenting voice had been raised against the mercurial doctrine, but the profession in general adhered to the opinion of John Hunter.

Heberden considered it as one of the four specifics discovered in medicine. Allusion was made to the remarkable paper of Dr. Fergusson in the Med. Chir. Trans. of 1813, and the observations made by him on the disease, as it appeared in Portugal, and the opinion of the German physicians.

Sir Benjamin Brodie, in mentioning the work of Mr. Abernethy on Pseudo-Syphilis, considers that the illogical conclusions and extraordinary assumptions contained in it, have much diminished the value of this part of his writings. This work of Mr. Abernethy Dr. S. considered a most useful one, as having led the way to the investigation, from which such important results have been derived. Dr. S. then related his personal experience. In 1813 he was placed for a short time in Colombo, in charge of the venereal wards, in which the cases were all treated with mercury. Many of them he found were well in a few days, others in five or six, others in three weeks; periods too short to warrant the conclusion that they were venereal; they were therefore set down as cases of pseudo-syphilis. The number of these cases increased with the field of experience, and in a few years the use of mercury was gradually resigned in almost every case of local disease.

The secondary symptoms were few and slight, and never required an extended course of mercury. The same plan of treatment was also adopted with them, and in a few years Dr. Scott, then garrison surgeon at Point de Galle, entirely abandoned the use of mercury. The inference which he drew, however, was, not that the venereal disease was curable without mercury, but that the real disease did not exist in Ceylon. Dr. S. then described the miserable victims who were constantly found in military hospitals at that time, affected by extensive ulcerations, nodes, &c., who furnished a considerable number of the invalided, and many deaths. Since mercury was abandoned, such cases have disappeared from the hospitals. In 1818 and 1819, Dr. Scott became acquainted with the results of the investigation which had been carried on in England, and since that time had entirely abandoned the use of mercury as a specific. He had found many cases in which it was required as an alterative. After some remarks on laryngeal ulceration, diseases of the bones, &c., which are still met with in practice, Dr. S. stated that he considered every case of local disease curable without mercury, and that under such treatment the secondary symptoms, when they did occur, were slightly and easily managed. In fact, the disease ran a certain course, modified by peculiarities of constitution, and required only the treatment adapted to such modifications. Dr. S. drew a contrast between two cases of secondary symptoms which had been under his care at the same time, of young men of the same age, and of irritable and unhealthy constitutions. Both were severe cases, but in one the patient recovered in two months, while the other, after many narrow escapes, could only be pronounced cured after the lapse of a year from the first attack.

Dr. Maclagan expressed his satisfaction that Dr. Scott coincided in the views Dr. M. had long entertained on this subject. His confidence in mercury as a specific in syphilis had been first shaken when, after he was a graduate in medicine, he attended for some months the Lock Hospital in London, under Mr. John Pearson. There, every variety of form in the disease presented itself, but in very many cases seemed to be aggravated, rather than benefited, by the mercurial treatment; and though Mr. Pearson, in his lectures, and in his conversations with his more advanced pupils, still advocated the necessity for mercury in the cure of syphilis, he often expressed his doubts whether in many constitutions the use of mercury had not been more injurious than beneficial. While afterwards serving with the army in the Peninsula, and in charge of a Portuguese brigade, he had also been much struck with the apparent success which attended the treatment of the primary forms of the disease in the Portuguese soldier, by topical remedies alone, or merely with the additional use of Lis-

bon diet and drinks, and sometimes without either. He saw none of those cases of secondary symptoms in an aggravated form, to which his late lamented friend, Dr. William Ferguson, has alluded in his paper in the Transactions of the Medico-Chirurgical Society of London; but Dr. M. was then disposed to attribute the success of the non-mercurial treatment among the Portuguese to some peculiarity in the climate, and in the constitution and habits of the natives, which he afterwards had occasion to remark in a very different disease, Traumatic Tetanus, which, with few exceptions, assumed a less fatal form among the Portuguese wounded than among the British. On his return to Edinburgh, after the peace, Dr. M.'s attention had again been directed to the subject by the opinions long expressed by his early teacher Prof. Thomson, and by the opportunities of seeing the practice in the Dépot Hospital in Edinburgh Castle, under Dr. Thomson's charge, as well as in that, and in Regiment Hospitals, under Dr. Hennen, Mr. Johnston, and Dr. Bartlett of the 88th regiment, the latter of whom published an excellent Thesis, at his graduation, on the non-mercurial treatment. This treatment had also been adopted in the practice of Staff-Surgeon Guthrie, and in that of Mr. Rose of the Coldstream Guards, and since very generally and successfully throughout the army. Since 1818 Dr. M., with a few exceptions where the patients' scruples afford full explanation, demanding its modified use, has adhered to the non-mercurial plan of treatment both in dispensary and in private treatment, and in no one instance has had reason to regret it. Many who were then so treated are his patients still, fathers of families enjoying, as well as their offspring, excellent health, and without the occurrence in the period that has elapsed of any secondary symptoms of an aggravated form. On the other hand, he has seen too many cases where the use of mercury to its full extent has been productive of constitutional injury of the most serious character.

Dr. D. Maclagan alluded to the success which attended the practice of Dr. Fricke in Hamburg, and Professor Krukenberg in Halle, in corroboration of the benefits of a non-mercurial system of treatment.

Dr. Bennett stated, that the last account of Dr. Fricke's practice, with which he was acquainted, is to be found in Sir Alexander Crichton's *Commentaries on Medicine*. This treatment had been tried on a large scale in the various garrisons in France, Germany and Sweden, and reports had been given to the various governments, amounting altogether to upwards of 80,000 cases, the general results of which were quite in accordance with the experience of Dr. Scott. He thought that one of the best evidences of the non-mercurial treatment existed in the fact, that those dreadful secondary

and tertiary cases which were formerly so common, are now seldom met with, and that pathological specimens of syphilitic bones, although common in museums, are at present scarcely to be obtained.

Dr. R. Mackenzie was of opinion that the observations which had been made were directed rather against the abuse than the use of mercury. As surgeon to the Lock Hospital of Edinburgh, he had seen many cases where the sores, however obstinate, had at once improved in character as soon as the constitution was affected with the drug. He alluded to two cases especially, in which this was observed, where mercury was given for iritis, but in which obstinate chancres on the genitals also began to heal as soon as the medicine produced its physiological effects.

Dr. A. D. Campbell stated that mercury was also necessary in the syphilitic eruptions of children.—*N. Y. Journal of Med. and Collateral Sciences.*

11. Case, showing with what Caution Speculative Chemical Testimony ought to be received.

TO THE EDITOR OF THE LANCET.

Sir,—Knowing the readiness with which you always give publicity to facts, the propagation of which may be of essential service, and especially those connected with the medical profession, I take the liberty of enclosing to you for publication, under the above heading, the following particulars, which came under my observation at the trial of Mary North, at the Surrey Assizes, at Guildford, on the 1st Nov. on a charge of murdering an infant, named Mary Ann Barker, on which occasion I acted as attorney for the prisoner. The chemist alluded to was Mr. Alfred Swaine Taylor, lecturer on medical jurisprudence at Guy's Hospital; and the surgeon was Mr. Tatham, of Wandsworth. From experiments which I had previously made, in order to convince my own mind, I became aware of the difference in colour which would arise upon mixing the ingredients in a different order; and I instructed Mr. Locke, my counsel, to insist upon the experiment being repeated in court in the manner it was. The girl was acquitted, I do not hesitate to say, in consequence of it.

I have the honor to be, Sir,
Your obedient Servant,
JOHN J. HARRINGTON.

At the recent trial of a young woman, on a charge of the murder of an infant, by administering vitriol to it, the prisoner's defence rested entirely upon this question,—whether sulphuric acid, sugar, and water, mixed together in certain proportions; and aniseed, sugar, and water, mixed together in like proportions, would in point of color, a few minutes after-

wards, produce a similar, or a somewhat similar appearance. The girl's life undoubtedly hung upon the result. It was the only link wanting to establish her complete defence. If the same result as to appearances followed upon the mixing both sets of ingredients, it established the girl's innocence. If a palpably different color and appearance were the result, that must go very far towards establishing the presumption of her guilt.

The question was put to an eminent surgeon, and his answer was, that they would produce similar, or nearly similar, appearances. After he had given his evidence, and whilst the trial was proceeding, a doubt arising in his mind, he left the court with one of the most distinguished chemists of the day, also a witness at the trial; and they together made the experiment. They returned into court, and the surgeon, in a state of excitement, requested the judge to allow him to correct his testimony; for he found, upon trial, that the two mixtures produced very different appearances: and he held up, in court, two wine glasses, one with the aniseed mixture, which was of a yellow color—the other with the sulphuric acid mixture, which was intensely black.

He was then asked by the counsel for the prisoner in what order he mixed the ingredients producing the black appearance; and he replied, the sulphuric acid first, then the sugar, and then the water; and he was then requested to repeat the experiment in court, putting first the sulphuric acid, then the water, and then the sugar. What was the consequence? Why, instead of turning black, it remained of a yellow color, and as nearly as possible resembled the mixture of aniseed, &c.

Had the experiment not been repeated in court, in the order of mixing the ingredients in which it was there repeated, the girl, in all probability, would have been hanged!

The quantity experimented with was about a tea-spoonful of sulphuric acid to two of water, and a small piece of sugar.

* * Mr. Harrington is entitled to great credit for the tact and ability which he displayed in this case. The life of the innocent accused person was saved by the sagacity of the attorney, and not by the eloquence of the counsel.—ED. LANCET.

Subnitrate of Bismuth in Gastralgie.—Dr. Bertini, of Turin, has lately employed this medicine in numerous cases of gastralgia, beginning with a dose of five centigrammes (= 0.77 grains), and gradually raising it to twenty centigrammes (= 3.08 grains). It was mixed with calcined magnesia, and given three or four times a day. In most instances the neuralgic pains disappeared under the use of this medicine: and in cases where the gastralgia appeared to be connected with organic disease, the symptoms were always much alleviated.

TO READERS AND CORRESPONDENTS.

We have received communications from Drs. A. G. Henry, and Benton. The following works have also been received:—

The Prescriber's Pharmacopoeia, &c. By a Practising Physician. Revised and corrected by an American Physician. New York: Samuel S. and William Wood. 1846. pp. 144. 16mo. From the Publishers. For sale by Brautigam and Keen, Chicago.)

A Manual of Chemistry. By RICHARD D. HOBLYN, A.M. OXON, &c. New York: Sam. S. & William Wood. 1846. pp. 336. (From the Publishers. For sale by Brautigam and Keen, Chicago.)

A Circular of the Committee of the National Convention, on Preliminary Education of Medical Students. From JAMES COWPER, M.D., Chairman.

Annual Circular of the Medical Department of the University of Buffalo.

Medical Education in the United States: an Address delivered to the Students of the Philadelphia Association for Medical Instruction, at the Close of the Session of 1846. By ALFRED STILLE, M.D. Lecturer on Pathology and the Practice of Medicine. Phil. 1846. pp. 39. 8vo.

The following have been received in Exchange:

The Annalist, a Record of Practical Medicine. October 1, 1846. Vol. I. No. 1.

- The Journal of Health and Monthly Miscellany, Boston. (In Exchange.)
- The Medical Examiner. (In Exchange.)
- The Bulletin of Medical Science. (In Exchange.)
- The Western Journal of Medicine & Surgery. (In Exchange.)
- The Buffalo Journal, and Medical Review. (In Exchange.)
- Southern Medical & Surgical Journal. (In Exchange.)
- The Western Lancet & Medical Library. (In Exchange.)
- The St. Louis Medical and Surgical Journal. (In Exchange.)
- The Medical News and Library. (In Exchange.)
- The American Journal and Library of Dental Science. (In Exchange.)
- The Boston Medical and Surgical Journal. (In Exchange.)
- The Missouri Medical & Surgical Journal. (In Exchange.)
- The New York Medical & Surgical Reporter. (In Exchange.)
- The New York Journal of Medicine and the Collateral Sciences. (In Exchange.)

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ROCK RIVER MEDICAL SOCIETY.—An adjourned meeting of this Society will be held at Dixon, Ill. on the third Tuesday of January. The Society is not limited in its boundaries. It is to be hoped, therefore, that every Physician who can will be present, to aid in advancing the interests of Medical Literature in the West.

S. G. ARMOR, M. D.
Secretary of the Society.